

Moving Blot



The
**MODERN
HOSPITAL**

Volume 44

MARCH, 1935

No. 3

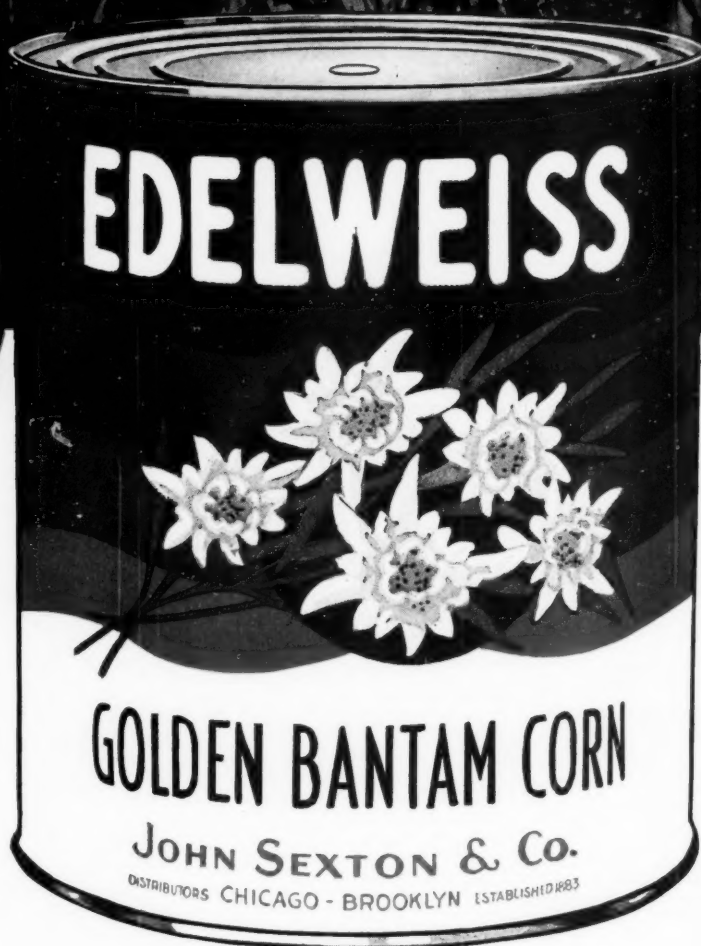


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For March, 1935

Just in Passing—

COVER PAGE—Ancient Entrance of Hôtel Dieu, Paris.

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OUR cover design this month shows one of the ancient entrances of the Hôtel Dieu, said to have been founded in Paris in 600 A.D., by St. Landry, Bishop of Paris, in his palace. The hospital possesses the distinction of being the oldest hospital in the world, there being no similar institution which can show an uninterrupted record of over twelve centuries spent in caring for the sick poor. About the year 1200 the hospital was moved from the gloomy old palace to a new building, to which later many additions were made. Our reproduction shows one of the buildings as it appeared in the fifteenth century. In 1737 and again in 1772 the hospital was destroyed by fire. It was promptly rebuilt and stands today on its original site on the Ile de Cité close to the Cathedral of Notre Dame.

HOSPITAL administration is at last coming into its own! In his address to the jury, Hauptmann's attorney attempted to cast doubt on the standing of a physician by pointing out that he was not connected with any hospital.

"Now you know and I know from our experience," declared Mr. Reilly, "that every respectable, high-standing professional man is always connected with some hospital if he is a physician or if he is a lawyer is connected with some bar association. He is consulting surgeon or he is administrating medical man or he is diagnostician or he is something. It is his standing in the profession."

This bouquet in the public press was offset by an attack from another quarter. Cal Tinney, writing in the

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New York Evening Post, urged that the federal housing administration should be directed to build more log cabins so that politicians may be born in them. "I feel sorry for the generation of politicians coming up," Mr. Tinney declares. "They can't say they were born in anything so humble as a log cabin. The best they can say is, 'I was born in a free ward.' It will be aggravating to discover you can visit your birthplace only at visiting hours."

MR. TINNEY need not feel too badly. The crop of potential politicians has not been entirely destroyed by drought or the AAA. Even yet two-thirds of the births in this country occur outside of hospitals. In the rural areas this is sometimes true because of lack of hospital facilities. This issue of *The MODERN HOSPITAL* discusses the question of rural hospital facilities from several angles—architectural, financial, administrative. The facts brought out in the various articles deserve the closest study by all who are interested in hospitals, in the public's health and in the rural population.

DOCTOR RANKIN lays the basis for the issue in the leading article which discusses the purpose and function of rural hospitals, as well as some of their unique problems. A special feature is the portfolio of plans and pictures of small community hospitals in various parts of the country, with comments by our architectural adviser. What farm people themselves really think about their hospitals and their hospital needs is outlined in Mr. Streeter's article (page 65) based on an actual survey. Canadian experience with small hospitals is presented by Doctor Agnew, Doctor Routley and Doctor Middleton.

THE quality of medical service in rural areas is of even more importance than the quantity. Through an unusual arrangement between the local hospital and

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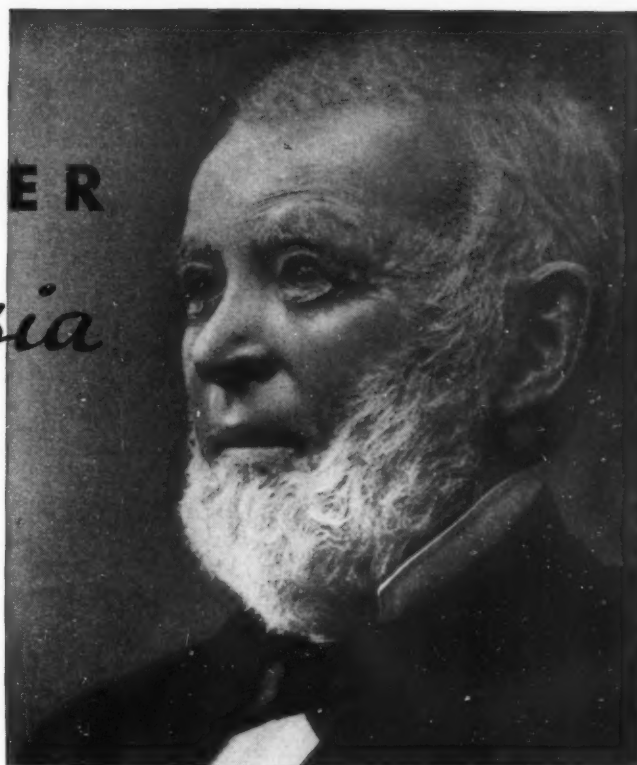
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a group of forward-looking physicians a small Wisconsin town has become a medical Mecca for a large rural population. This achievement will be described next month by one of the participating physicians.

WHILE hospitals in other states have been unhappy over neglect by FERA, the hospitals of New Jersey have been fortunate in having a sympathetic and intelligent state relief administration that has agreed to pay for the care of indigent cases wherever this is necessary for the continuance of free services. The details of New Jersey's interesting plan will be presented by an officer of the state emergency relief administration next month.

THE day of the "muck-rakers" may be past. Occasionally an abuse greatly needs exposure, however. Next month The MODERN HOSPITAL will tell the story of abuses in the manufacture and sale of corrective surgical appliances.

TWO new features of the magazine will appear for the first time next month. One will be a digest of current hospital literature. The other will be a much more comprehensive news service from all parts of the United States.

FLASHES FROM THIS ISSUE:

"More than half the general hospitals in the United States are fifty-bed capacity or less." *Page 45.*

"The time has passed when the matter of color can be left to the willing hands but debatable taste of a house painter." *Page 46.*

"Managers of hospitals with old buildings who feel that there is a crying need for replacement and no likelihood of collecting the necessary funds could well study plans for rehabilitation instead." *Page 75.*

"A study of small hospital distribution reveals large areas inadequately covered, while in other more closely settled districts almost every little town has a tiny hospital, perhaps two." *Page 68.*

THE MODERN HOSPITAL

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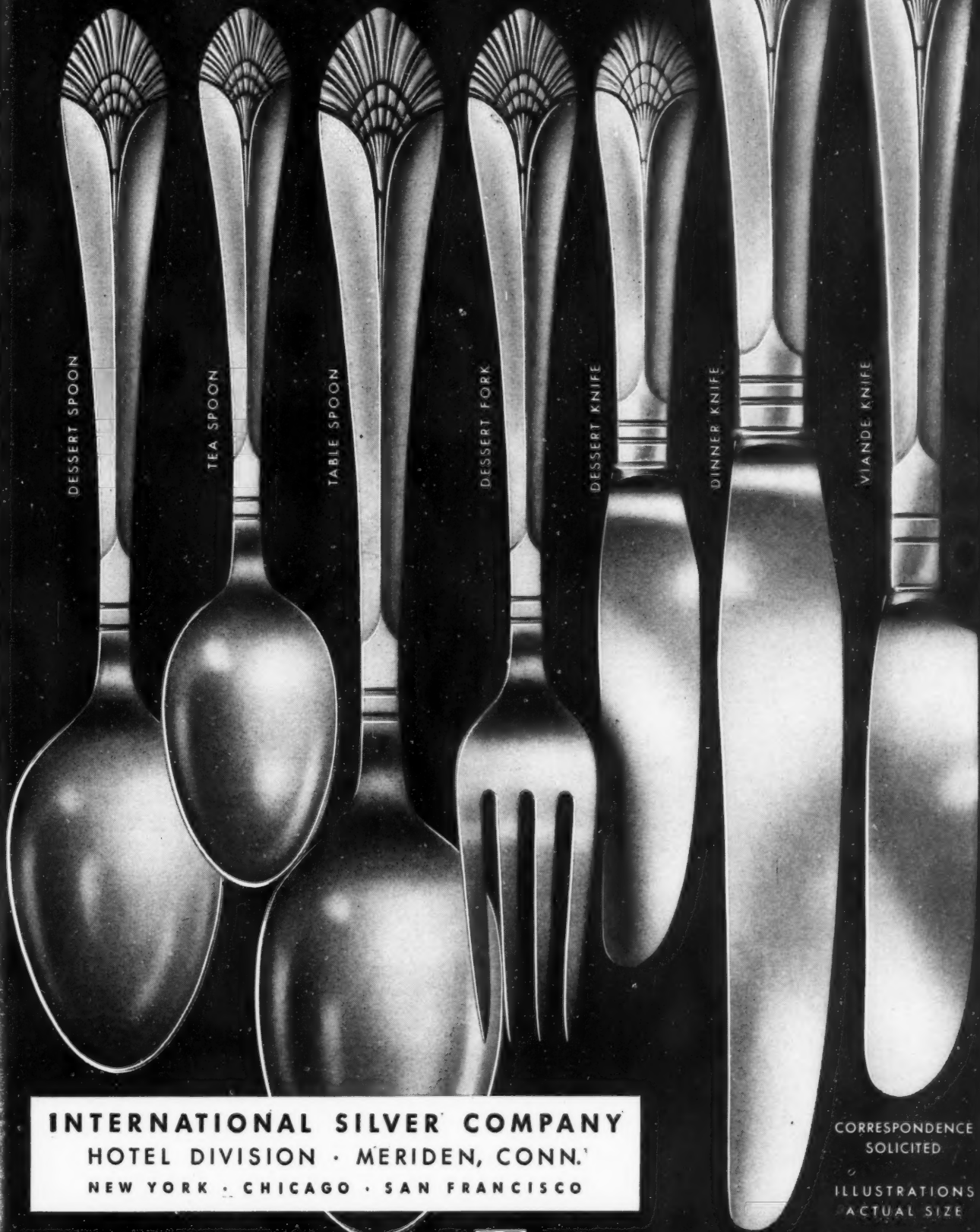
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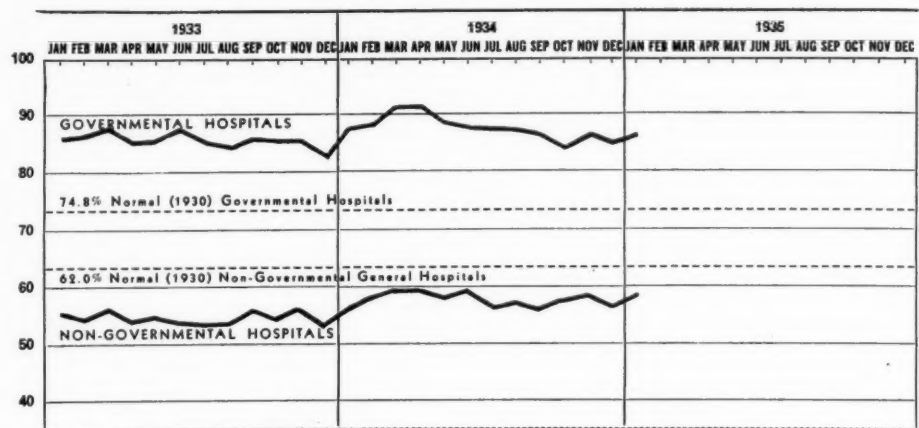
Occupancy in both governmental and nongovernmental hospitals increased in January, as is customary following the Christmas holidays. The nongovernmental hospitals showed a rise of 2.3 per cent and the governmental institutions of 1.2 per cent. The nongovernmental hospitals were 2.2 points above the figure for January, 1934, but the governmental hospitals were 2.7 points below last year's figure. Starting with January one additional governmental hospital is reporting from Chicago.

Hospital building projects revived somewhat following the holidays. From January 14 to February 11 thirty-one projects were reported. Of these twenty-three reported the estimated costs, amounting to \$6,013,000. Twenty-two of the thirty-one projects were for additions to existing hospitals, seven were for new hospitals, one for a nurses' home and one for alterations.

General business conditions showed a definite upward tendency in January and early February. Industrial production, which in December equaled the 1934 high after due allowance for seasonal variation, has shown a further gain since the first of the year, the U. S. Bureau of Foreign and Domestic Commerce reports. In the week ending February 2 two business indicators which have lagged heretofore made sharp gains. These are freight car loadings and lumber production. These increases, together with the gains in automobile and cotton textile output, resulted in

an advance of 1.5 points in the composite index of business activity. Some of the forecasters, however, were predicting a falling off of activity in the spring and summer due to business fear of governmental action in Washington.

The general index of commodity prices of the *New York Journal of Commerce* attained a new recovery peak at 80.2 on February 16, the highest point reached since September, 1930. (1927-29 = 100.) Grain and food price advances were largely responsible for the rise. The index of grain prices advanced from 87.8 on January 26 to 88.7 on February 16, while general food prices went from 79.8 to 81.3 during the same period. High meat prices as well as some of the other advances result largely from last summer's drought. Textile prices remained practically unchanged. Fuel advanced from 80.8 to 81.3, but building materials dropped from 92.8 to 92.1. The index for prices of drugs compiled by the *Oil, Paint and Drug Reporter* rose slightly.



OCCUPANCY FIGURES OF HOSPITALS IN VARIOUS STATES AND CITIES

Type and Place	Census Data on Reporting Hospitals ¹		1934												1935
	Hospitals	Beds ²													
			Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Nongovernmental															
New York City ³	68	15,194	69.0	70.0	73.0	75.0	75.0	75.0*	66.0	62.0	61.0	66.0	68.0	68.0*	68.0*
New Jersey.....	58	9,772	58.0	62.0	63.0	63.0	63.0	61.0	61.0	59.0	58.0	60.0	61.0	58.0	58.0*
Washington, D. C.....	9	1,763	61.7	65.0	67.2	65.8	62.8	62.8	58.4	59.3	60.7	65.4	65.3	61.8	72.0
N. & S. Carolina.....	98	5,734	54.0	57.3	59.2	59.4	59.6	62.1	62.6	62.3	60.9	61.1	60.9	56.8	60.9
New Orleans.....	7	1,196	42.4	43.4	46.5	42.1	43.2	48.4	43.3	52.1	49.5	49.5	47.7	44.9	47.7
San Francisco.....	15	2,825	59.5	63.0	61.9	61.6	60.3	58.1	56.8	56.9	60.8	64.2	63.2	62.0	62.0*
St. Paul.....	6	912	51.8	53.8	49.4	50.7	47.3	49.1	44.9	45.7	43.4	39.1	45.8	45.8	41.5
Chicago.....	22	5,866	53.1	53.5	53.3	55.4	56.5	57.7	57.3	59.3	55.6	56.9	57.9	54.5	57.4
Cleveland.....	14	3,100	57.0	58.0	58.0	61.8	59.9	61.3	60.0	58.4	56.7	57.8	57.7	56.5	62.0
Total⁴.....	297	46,362	56.3	58.4	59.1	59.4	58.6	59.5*	56.8	57.2	56.3	57.7	58.0	56.5*	58.8*
Governmental															
New York City.....	16	11,615	100.7	100.0	105.0	103.7	101.9	93.7	91.3	89.5	88.3	89.4	91.0	92.9	96.7
New Jersey.....	6	2,122	89.0	94.0	93.0	91.0	90.0	86.0	85.0	80.0	80.0	83.0	81.0	78.0	78.0*
Washington, D. C.....	2	1,076	87.1	88.3	83.2	84.3	84.7	84.7	79.0	80.2	81.7	78.1	84.8	77.6	86.6
N. & S. Carolina.....	12	1,197	58.6	65.8	66.4	66.8	64.5	69.4	70.6	66.9	64.0	67.0	68.3	64.7	65.4
New Orleans.....	2	2,227	106.6	112.5	129.5	136.4	127.1	137.9	148.7	152.4	148.0	129.3	131.6	130.5	131.8*
San Francisco.....	3	2,315	77.4	79.2	76.7	76.7	80.7	77.7	76.4	77.9	74.4	72.7	78.1	74.2	74.2*
St. Paul.....	1	1,050	79.8	78.5	76.9	76.3	76.1	73.2	69.0	68.0	67.3	66.8	68.5	68.8	68.8*
Chicago.....	2	3,500	92.8	94.3	93.2	94.6	91.1	87.5	84.8	83.7	83.1	84.8	87.0	84.7	89.0
Total⁴.....	44	25,102	87.8	88.8	90.8	91.2	89.5	88.8	88.1	87.3	85.9	83.9	86.3	83.9	85.1*

¹Insofar as possible hospitals for tuberculous and mental patients are excluded as well as hospital departments of jails and other institutions. The census data are for the most recent month. ²Including bassinets, in most instances. ³Includes only general hospitals. ⁴The occupancy totals are unweighted averages. These averages are used in the chart above. *Preliminary report.

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Construction, Equipment, Administration and Maintenance of Hospitals and Sanatoriums

VOLUME 44

March, 1935

NUMBER 3

The Rural Hospital—Its Purposes and Management

By W. S. RANKIN, M.D.

Director, Hospital and Orphan Sections, The Duke Endowment

THE term rural hospital as here used is understood to include general hospitals of from twenty-five to fifty-bed capacity located in counties of from 15,000 to 50,000 population. Such counties usually have a county town or county seat with a population of from 2,000 to 10,000 people and some six or eight smaller towns and villages, with populations ranging from 500 to 2,000, so located as to supply convenient trading centers.

There are 3,073 counties in continental United States. Approximately 166 of these counties have populations in excess of 100,000 persons. This usually means a large town of 25,000 population or more. We may expect to find in practically this entire group of counties some sort of a general hospital, either a general hospital owned and maintained by the county or the county town or jointly by the county and the town, or by some charitable, religious or fraternal organization,

or by some individual or individuals, that is, a private hospital.

In 1,300 of the remaining 2,907 counties there are no general hospitals of any kind. In the 1,607 counties intermediate in population between the larger counties with the large towns and hospitals and the 1,300 rural counties without any hospitals, there are general hospital provisions. Some of the hospitals in this intermediate group are proprietary hospitals. Many are too inadequate in size and

support to supply the area served with anything but minimum provisions. By minimum provisions we have in mind one bed per 1,000 population. Generally speaking, we may assume that two beds per 1,000 population in rural communities, in place of the five beds per 1,000 population for urban communities, would be considered as adequate. Excluding the counties of the United States in which are located large centers of popula-

Doctor Rankin here emphasizes the point that the larger purpose of a rural hospital is not to give institutional care to twenty or forty seriously ill patients, but to build up a professional service that takes care not only of the few seriously ill in the institution but that takes care of the sick throughout the entire county

tion, 100,000 or more, and considering the other 2,907 counties, in 1,300 of which there are no hospital facilities of any sort, it is safe to assume that rural hospitalization in the United States is at least 50 per cent inadequate.

Closely related to the absence of and limitations in hospital provisions in these rural sections of the United States is the problem of medical personnel. There are 185 physicians per 100,000 population in places of 100,000 and over. There is less than half that number, 78 physicians per 100,000 population, in places of 5,000 and under.

Young Doctors Prefer Urban Centers

The professional age of physicians in rural sections is much higher than that of physicians practicing in urban communities, or, to state the same fact in other words, the young physicians with more modern training tend to go to urban centers where modern facilities are available, leaving the rural communities to the older members of the profession, many of whom did not receive hospital training as part of their medical education. In the United States 10 per cent of the physicians have practiced thirty-five years or more. In Philadelphia 12 per cent of the physicians have practiced more than thirty-five years. In the typical rural sections, as, for example, Shelby County, Indiana, (population 26,000) and Franklin County, Vermont, (population 30,000), 34 per cent of the physicians have been in practice more than thirty-five years.

Physicians in rural practice have difficulty, as compared with the urban type, in keeping abreast of the rapid advancement of medical science. In the first place, a large part of their time and energy is consumed in travel. In the second place, they lack the professional contacts, more especially the influence of staff meetings, of the urban physicians who practice in hospitals. In the third place, their income is limited as compared with that of the urban practitioners. In places of less than 5,000 population, for example, there are 30 per cent of all the physicians of the United States but they receive only 18 per cent of the professional income. In places of 100,000 population and over, on the other hand, are 44 per cent of the physicians of the country who receive 54 per cent of the total income.

A background of ten years' experience in encouraging and assisting in the development of rural hospitals in North Carolina and South Carolina has impressed me with the fact that it is difficult to get across to the intelligent public and even to the medical profession the fundamental purpose of a rural hospital. Both the observing lay and the medical groups think the major purpose of the institution is to provide for the institutional care

of the sick. These intelligent observers, lay and professional, miss, as a rule, the less obvious relationship between the hospital and the type of medical service which the average community, with the development of its hospital, slowly evolves. It is rather difficult to distract the thought of the observer from the building; to get him to understand clearly that the larger purpose of a rural hospital is not to provide institutional care for a small percentage of the sick of a community, but to influence directly and positively the medical service of the whole community, both for the small percentage of the seriously ill who are treated in the hospital and for the large percentage of the less seriously ill who are treated in their homes and in doctors' offices.

A hospital is a powerful influence in the community in determining both the quantity and the quality of its medical service. The community without any hospital facilities has ceased to attract the young, well prepared, hospital trained physician. His whole teaching and experience make him dependent upon modern treatment facilities.

Moreover, the young, ambitious, well trained physician, if he should by force of circumstances be impelled to locate in a rural community without a hospital, stays no longer than is necessary to enable him to move into a more congenial professional environment. Herein lies, in my judgment, the principal cause of the relative scarcity of physicians in rural communities. Moreover, the older physician who, in the face of discouraging circumstances, has had the will to keep abreast of the advances in modern medical science either provides hospital facilities himself, a proprietary hospital, or moves to a community that affords him a better opportunity to satisfy his professional ambition. The hospital, then, determines in a large way the number and the type of physicians that serve a community. And that is its larger purpose and importance.

A New Hospital Changes the Picture

Another important influence which a rural hospital has in determining the quantity and quality of medical service is sometimes so obvious in a rural community as to act as a boomerang. Let us now think of a typical rural county of 25,000 population with 14 physicians, one-third of whom have practiced more than 35 years. Of the 14 physicians, 9 live in the county town of 6,000 or 7,000 people and 5 live out in the county in small places of from 500 to 2,000 people. Of the 14 physicians there are 4 who are making a desperate effort to keep abreast of the times. They attend the medical society meetings. Now and then they pick up a short postgraduate course. They read the part of

their medical journals that fits into the need of their practice. They are kept very busy. They have gross incomes of from \$10,000 to \$12,000. The physical condition of their practice, time consumed in travel, absence of nursing assistance and laboratory and x-ray facilities, limit them to their present load.

A hospital is built. Nurses come into the picture. There is a laboratory, x-ray equipment and a technician. These busy men are now in a position to say to those who come to them for treatment: "I will take care of your wife or your child if you will bring her into the hospital." In other words, as the demand upon them grows, they can cut down travel and the practice in country homes where, in the absence of the nurse, they must take temperatures, pulses, and respiratory counts, apply poultices, give enemas and attend to details of practice that skilled assistants care for under hospital conditions. In short, a hospital makes it possible for these busy men to double and treble their practice or their professional reach. The hospital has enabled the best qualified men in the community to increase their practice at the expense of the less qualified members of the profession. I could point out a number of communities in these two states where two or three physicians, with all the facilities of a good hospital and with the factor of travel largely eliminated, are doing the work that would without the hospital require the services of from eight to ten physicians, and along with the increase in quantity of service a like improvement is found in its quality.

Two Major Needs

Excluding the 166 counties with a population of 100,000 and over as rural types, and limiting our thought to the 1,607 counties that have some sort of general hospitals, profit or nonprofit, and the 1,300 counties that have no hospital facilities, the two major needs are (a) improvement of existing hospitals and (b) additional rural hospitals.

The improvement of existing rural hospitals should constitute the first step in any general program. Many existing hospitals in counties of less than 100,000 population are inadequate in size and equipment, are in bad repair and are inadequately supported. These existing hospitals, generally speaking, are in the counties where hospital facilities are most needed and are strategically placed to serve the larger population groups. To improve and more fully utilize what we have before assuming new obligations would seem to be wise. In all probability, the need for additional funds invested in hospital construction and equipment and in the support of hospitals is greater or certainly as great in rural counties that have hospitals as in the 1,300

counties without any sort of hospital provisions. In this statement is expressed the policy of The Duke Endowment. We have felt that in North and South Carolina our first problem was to improve and more fully utilize what we found already in operation before providing for any large addition in the number of hospitals.

Additional hospitals in the 1,300 rural counties, now without any hospital provisions, should constitute the second step in the program of rural hospitalization. In providing for additional hospitals in counties where there are at the present time no hospitals, careful consideration should be given to (a) the size of the population to be served, (b) possible sources of support for the hospital after it is constructed, and (c) its relation to and effect upon the work of hospital plants in adjacent counties.

Rural Hospital May Serve Several Counties

It is at the present time a questionable procedure to undertake to provide the minimum of one hospital bed per 1,000 population for a population group of less than 20,000. That is to say, a twenty-bed institution is perhaps as small a hospital as we should think of in the usual conception of that term, excluding from this usual conception what may be later referred to as cottage type hospitals or organized rural medical services. The smallest rural hospital of twenty or twenty-five beds may not necessarily be constructed to serve the population of a single county. It may be so located on main highways as to serve the combined population of two or three counties, that is, two or three counties with population groups so small as not to justify single counties assuming the financial responsibility for support of a hospital.

In addition to these small hospital units there are many rural sections, inadequate in population and finances to support a small hospital, that should have a medical center or organized medical service or what has been referred to as the cottage hospital. What we have in mind under this term is a small building that would cost \$15,000 or \$20,000, which would provide an office for a bookkeeper, a telephone operator, a waiting room, three or four doctor's offices with connecting examining rooms, laboratory facilities and diagnostic x-ray facilities, and from eight to twelve beds for the treatment of emergency cases and obstetrics. The cottage hospital would supply, in addition to a bookkeeper and telephone operator, a janitor, cook, technician, and two or three graduate nurses, depending upon the average number of patients. This organized medical service or cottage hospital would require more complete understanding on the part of the community with the outstanding members of the medical profession than the construction of an ordi-

nary hospital. Its successful operation would depend upon the local physicians being willing to cooperate and assist in the support of the medical center by agreeing to pay a rental for their offices in the building, the rental covering a reasonable part of the interest on the construction and equipment and the cost of the telephone, technical and nursing services supplied the lessees.

This cottage hospital or organized rural medical service should have well established professional relations with a hospital or larger medical center within a distance of from thirty to fifty miles. The larger consulting hospital and the smaller cottage hospital have a mutual interest upon which such a relationship could be established without much difficulty. The cottage hospital would refer difficult cases to the medical consulting center, an advantage to the consulting hospital, and, in consideration of that advantage, the consulting hospital would lend every assistance to the cottage hospital.

Any broad hospital program must include an important time element. To illustrate: A new hospital was recently constructed at a cost of around \$350,000 in a city of 20,000 and in a county of about 50,000. This new plant of 225 beds replaces an old plant of approximately 125 beds. This hospital center has been built up through service extended to the patients of the county in which it is located and five or six adjacent counties. It has developed an exceptionally fine type of medical service and is a reference and consultation center for a population of something like 200,000 people. Any rapid development of a hospital building program, however, without regard to the past services of the institution and without regard to its investments and its future, would have been to a considerable extent destructive in its influence rather than constructive.

Management of Rural Hospitals

The Canadian provinces, the state of Pennsylvania, and, in North and South Carolina, The Duke Endowment maintain central contributory agencies for the support of hospitals. In order properly to discharge the responsibilities under which they operate, it is necessary for these agencies to obtain from the assisted hospitals certain essential information concerning their condition and operation, income, expenditures and character of service rendered. This automatically places the central contributory agency in the possession of a vast amount of comparative data, submitted by the assisted hospitals as a basis of their request for assistance.

For example, in the case of The Duke Endowment, the central office knows such things as the average cost per patient per day and the elements

that enter into that average cost, such as average cost for nursing service, for food, medicines and surgical supplies, fuel, water, light, and it knows the fatality rate for major surgery and various types of operations. This valuable information is in turn made available to the assisted hospitals in comparative tables, so that each individual hospital has the advantage of profiting by the practices and experiences of the entire group of 115 hospitals, or of comparing its work, its receipts and its expenditures for the various items that enter into its expenses with the particular group of hospitals in which it is classified, white, Negro, white and Negro, hospitals of less than 50 beds, hospitals of from 50 to 75 beds, of 75 to 100 beds and so on. This arrangement has unquestionably saved many hospitals as much as they have received through the direct contributions of the central agency. The unquestionable opportunities and functions of a central agency such as has been referred to are to furnish assistance in two distinct forms, money and information.

There Is an Element of Danger Here

There is a disposition sometimes for central agencies to go beyond these two functions of giving financial assistance and supplying essential information and to give advice and assume in some measure responsibility for the operation of the hospital. The assumption of such responsibility carries with it a definite element of danger. To illustrate: The trustees of a local hospital request the opinion of the director of the central agency as to whether or not an application for membership on the staff should be approved or rejected. The board of trustees, in submitting their request has neglected the opinion of the professional staff of its hospital, which is or should be qualified to pass upon professional matters; moreover, in all likelihood there has been a division among the trustees of the hospital as to whether or not the applicant should be admitted to the staff. The request for an opinion from the central agency is, perhaps unconsciously, an effort to avoid responsibility. If the central agency is willing to assume responsibility, in the course of a few years the trustees will be referring to the central office practically all administrative questions.

The interest of the members of the local board of trustees in their hospital, their knowledge of what it is doing, their appreciation of its needs are definitely related to the responsibilities they assume. Once the local responsibility is assumed by another, that function of the board of trustees atrophies. Without local responsibility and interest, local support suffers.

We shall probably see, with the more general

development of rural hospitals, the development of central state agencies for coordinating their development, for assisting and financing them and for supplying essential information in regard to the operation of hospitals. Possibly some will take the questionable step of insisting upon a certain amount of control and direction over the assisted hospitals.

Rural hospitals, like hospitals generally, should have a dual control, a board of trustees, which is an administrative body responsible for obtaining funds with which to build, add to, equip, and operate the hospital, and a professional staff, responsible for the character of the professional service which the institution renders. Naturally there are problems of mutual interest to these two bodies, but they can be handled by some sort of coordinating mechanism such as an advisory committee of the staff to meet at regular intervals with the trustees, or by a provision in the charter that certain officers of the staff, as the chief of staff or the secretary of the staff, be ex officio members of the board of trustees.

The board of trustees should be constituted largely of lay members. It is their business to interest the local government and the business interests of the community in supplying funds with which to maintain and operate the hospital, and to assure the contributing parties that the funds are being properly handled and expended. To place upon the board of trustees of a hospital a large number of doctors, especially in a community which has only recently acquired a hospital, is to convey to the community the idea that the hospital represents a professional interest rather than a public interest. This feeling results in the community leaving the matter, including the financial responsibility and obligation, too much to the practicing physicians who have neither time nor inclination for that sort of heavy responsibility.

Rural and Urban Staff Problems Differ

Staff problems of the rural hospital that are somewhat distinctive from those of the large urban institution include such important matters as good clinical records, consultations, revolving services and limitations of hazardous practices. One should not expect to find as good clinical records in small hospitals, where every record has to be written by the attending physicians, as in the large hospitals where most of the recording is done by advanced medical students, interns and residents. Those of us who are interested in good rural hospitals should lose no occasion to emphasize the importance of good clinical records. Without good clinical records there is no lasting evidence of the quality of the professional work which is carried on in the

institution. A physician from the outside who visits such a hospital for the purpose of obtaining a judgment as to the character of its professional service, in the absence of good clinical records is as handicapped as an auditor who visits an institution for the purpose of determining its financial condition and finds inadequate financial records.

While it is well for those of us connected with rural hospitals to recognize the fundamental importance of good clinical records, we must not overlook the disadvantages which the doctor who practices in the small hospital is under as compared with the doctor who practices in the large hospital, who talks much about good clinical records but rarely writes them himself.

Consultations are as much needed in the small hospital as in the large hospital, or more, but not infrequently we find a small hospital in a community where there is only one surgeon and where 50 per cent of the work of the hospital is charity. A consultation in such a hospital would require a consulting surgeon to travel a distance of thirty or thirty-five miles, and that without any hope of financial reward.

Rotating Service Not Practicable

Another difference in the operation of the small rural hospital and the larger urban hospital is in the matter of rotating services for the care of charity patients. In the first place, in the small hospital usually there are not two or three surgeons on the staff, but one; there are not two or three interns on the staff, but one; there are not two or three pediatricians on the staff, usually there is none, so there can be no such thing as a rotating service. In the second place, in small communities the cook or the laborer who is sent to the hospital as a charity case is usually referred by the employer to his own family physician, and most of the charity cases in small rural hospitals are not unassigned but assigned cases, so that the matter of a rotating staff which obtains in the larger hospital cannot obtain in many of the smaller hospitals.

It is most encouraging to those of us whose responsibility lies in a large measure with the small hospital to note the growing interest in the smaller type of institution. More than half the general hospitals in the United States are fifty-bed capacity or less. This proportion will greatly increase in the years immediately ahead of us. The large hospital can employ competent management, as it is located in the large centers of population where men of experience and genuine interest in hospital programs are available for boards of trustees. It is the small institution that needs assistance in the form of both money and information, not necessarily advice and direction.



New Dress for the Hospital Room^{*}

THE first requisite for those contemplating hospital refurnishing, whether it entails private rooms, nurses' rooms, lounges or reception rooms, is to start with a plan. What, for example, should be the logical procedure for undertaking the renovation of a series of private rooms?

The time has passed when the matter of color can be left to the willing hands but debatable taste of a house painter, nor is it sufficient to buy a bolt or two of some inexpensive fabric, cut it in the necessary lengths and hang it at the windows. Private accommodations have assumed new importance, commanding almost the same thought and attention to decorative detail as hotel rooms.

Lest too great enthusiasm breed impracticability, however, the fact that it is a hospital room, designed for the efficient care of the sick must ever be kept in mind. Despite the desire to make it assume the informality and luxury of a bedroom in a private home, it can never hope to achieve that impression. It is unwise even to strive for it.

There are certain fundamentals about which the general decorative scheme must be developed. The exposure of rooms, for example. Rooms with southern and western exposure may well be treated with cool colors to absorb the bright rays — blues, greens and grays. For dark rooms light shades and those containing gold will be most suitable.

The size of the room is another consideration.

^{*}Acknowledgment is made to L. C. Chase & Co., F. Schumacher & Co., and Myers, Minott & Co., New York City, for material included in this article. Photographs courtesy L. C. Chase & Co.

The services of a professional decorator are not always available. Therefore certain fundamental principles of interior decoration applied particularly to the hospital are supplied as a guide to those who must rely upon their own judgment in such matters

The smaller it is, the lighter the colors should be. Dark colors will tend to decrease its apparent size. This applies particularly to wall colors.

Suitable arrangement of colors must be studied. The darkest colors are put on the floor, the lightest on the ceiling. In between in color range are the furniture, draperies and the wall, progressing generally from dark to light in order named.

Assuming that the floors are of wood, finished perhaps in dark walnut or linoleum in some dark neutral shade, great latitude is permitted in selecting the color to be used on the walls. Depending upon the exposure of the room, a choice may be made between such shades as a gray blue, a light greenish gray, soft greens, pinkish tans, natural tans and pale yellow. Should a colored linoleum be used as a floor covering, obviously it must be considered in evolving a general color scheme.

Color schemes are comparatively simple. They

depend upon a wise combination of the three basic or primary colors. Most rooms must contain some tone of each of the three primary colors, red, blue and yellow. It is usually true that two of these will appear in a secondary shade, such as green for the blue or orange for the red, or gold instead of yellow. For satisfactory eye value it is wise to watch the color scheme carefully to be sure the third of the primary colors is represented.

It is possible to keep a room very definitely in a two-color effect and with some of the new and subtle shades this can be done satisfactorily. The color keynote is supplied either in the floor covering or the drapery, with other colors introduced for variety. For example, with red or deep rose as a foundation, an effective color plan may be achieved by the use of green or blue, beige, yellow or gold, plum, eggplant, burgundy or brown.

When green is the predominating shade, beige, gold or brown may be used and also blue. Interesting experiments may be made by using touches of rust, rose red or mulberry in the accessories.

Where yellow is the keynote, shades of blue, blue gray or blue violet will afford a pleasing contrast, also green, with a bit of red, rust henna, brown or burgundy introduced into the accessories.

There is a harmony in colors of even values. Colors are either light or dark in tone. The light

tones (tints) such as pale blue, pale yellow, pale green and pale pink are in harmony. Likewise deeper values of brown, dark gray, blue, green and red will harmonize. Whereas a harmony of color will never irritate, it can grow monotonous. Hence the advantage of introducing a careful contrast into the color scheme. Usually the contrasting color is bright, yet deep in tone, occupies a small area and lends a decorative note. The study of a good chintz design will illustrate this introduction of a small area of deep and contrasting color.

Too much emphasis cannot be laid upon the desirability of evolving different color schemes in hospital rooms. Everyone does not respond similarly to color. Therefore, it is well to provide sufficient variety to meet every taste. Here again, however, care must be exercised in keeping within the bounds of practicability. The general decorating plan must be foolproof, offering sufficient interchangeability to provide for such exigencies as furniture or drapes designed to harmonize with one color scheme getting into the wrong room, with disastrous effects.

The tendency to use color on hospital walls has led to many interesting developments such as the introduction of a wall covering which can be washed and may be had in a wide variety of suitable shades, perfectly plain or with an inconspicuous



A room in a two-color effect is pleasing when some of the new and subtle shades are used. Here is one of the private rooms at the Palo Alto Hospital, Palo Alto, Calif.

self-color pattern. This method of treatment guarantees the precise shade and precludes the possibility of disappointment after the color has been applied to the walls.

The arrangement of the color within the room will depend upon the number of windows, the number of chairs and other pieces of furniture. If the room is not too small, it is interesting to have the chairs contrasting. If there are three, one can be of a solid color, another have design in the upholstery, while the third may depend for interest upon the texture or weave. A sofa and one chair may be alike, or a chair may be slip covered with material the same as the draperies. Bedspreads and draperies may be of identical material or merely the same color.

Period design is not a factor in hospital furnishing. What is commonly referred to as early American, meaning simple designs executed in maple, typifies such trends as exist. There have been instances, too, where the modern note has expressed itself, and it would not be surprising to encounter more of this in the future. The extreme simplicity of line embodied in this new school lends itself admirably to institutional treatment.

Unhampered by restrictions imposed by period styles, free rein is permitted in the selection of fabrics. There are today on the market numerous designs distinctly modern in feeling executed in mohairs, linens and cotton goods. Hand-blocked printed linens are suitable, of course, with early American or colonial furniture as well as with heavier and more ornate Italian and Spanish pieces. Glazed chintzes are likewise effective with maple furniture and wherever a light effect, small in scale, is desired.

Many Materials Available for Hangings

Hangings are an important part of the decorative plan because they serve as a connecting link between the walls, the floor and the furniture. Assuming that a gray blue is used on the walls, what could be more pleasing in contrast than curtains of a soft shade of pink linen, perhaps, or one of the new mohairs. Striking developments have taken place of late in introducing mohair upholstery materials that possess distinctive weaves and richly colored patterns designed to conform with present style trends. Mohair, too, as is generally recognized, has the additional advantage of being practical in that it sheds dust easily and does not require frequent laundering. When laundering is necessary, however, it can be put through the regular processes with no bad effects. The new mohairs, too, are preshrunk so that hangings will continue to fit properly.

A pink glazed chintz featuring a modest flower

design might also be considered. There is one objection to a glazed material, however. Despite the ease with which dust and dirt may be wiped from it with a damp cloth, it will not be long before the glaze becomes but a memory, and a slinky dejected looking fabric appears. Fabrics can be re-glazed, of course, but this process is rather expensive.

Should pink be the color selected for this room, the slip covers might likewise be of that shade with possibly a white binding at the seams, thus producing an extremely smart effect. Furniture stained brown and brown rugs would complete the scheme.

How to Treat a Sunny Room

Suppose another room on the opposite side of the hall boasts a particularly sunny exposure. Here would be an excellent opportunity for introducing green on the walls, a soft yellow green preferably. Yellow hangings would go splendidly here and if it were the inclination to do something a bit daring, a red and white figured linen might be used for slip covers. In this room, too, it would be better to stain the furniture brown. However, dark green rugs could be introduced for a change if desired. In such a room, too, dark green linoleum on the floor would tone in nicely.

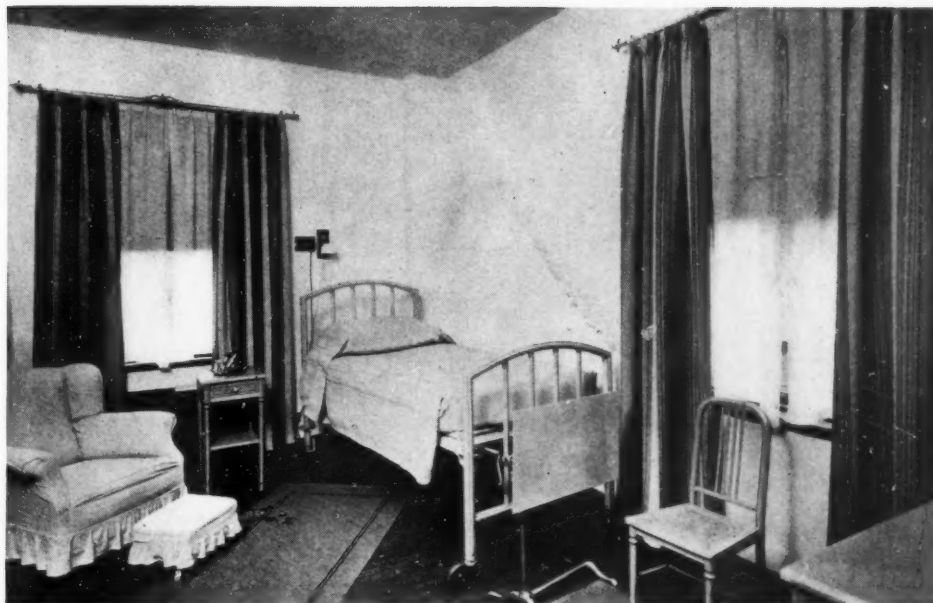
For variety, let us assume that in another room the walls are tan. Why not then use a pattern material for hangings in light green perhaps edged with yellow? In working up such a plan, the furniture might be painted a dark green and green rugs used. The same material as used for hangings might serve as slip covers, also, piped in yellow.

As the bed is the center of interest in the hospital room, it should be made as attractive as possible. Bed coverings should tone in with the general color scheme. Plain inexpensive material of the same shade as the walls may be used piped with the fabric selected for the hangings. Neutral tans or linen shades are always in good taste piped with the predominating color in the room.

Reference has been made to such materials as mohairs, chintzes and linens. Whatever the type of fabric selected, it must be carefully checked for wearing qualities, ability to withstand sun and undergo strenuous laundering processes. It has already been indicated that glazed chintz will lose its first freshness where frequent cleaning is essential. In lounges, reception rooms and libraries, it may serve more effectively than in those sections of the hospital devoted to the actual care of the sick.

In selecting fabrics, careful attention must be given to color as well as to the material itself. Yellow shades such as apricot, peach, cream and similar tones reflect light. Those shades nearer black, blues, reds and violets, absorb light. It will be

Well tailored plainly made curtains which will keep their shape despite frequent laundering are desirable and judicious use of slip covers will work wonders.



found that colors seem darker when seen against the light than when the light falls directly upon them. Thus, a shade which may be ideal as furniture covering may be wholly inappropriate when hung at the window. The fact that hospital hangings are seldom lined makes it all the more important that they be tested against the light.

Initial economy, as desirable as it may be, frequently leads to extravagance when the final check-up is made. It is far better to be assured of quality at the start, even though it costs more.

Once the materials have been chosen, the next question is how to make and hang them. This is comparatively simple, for it is inadvisable to strive for anything but straight lines in hospital hangings. Well tailored, plainly made curtains which will keep their shape despite frequent laundering, are to be desired. Fringes or edges that will fray or tear must be avoided.

Generally, a width of thirty-two inch material on either side of a window will suffice, for hospital curtains are seldom drawn, the light being controlled by window shades or venetian blinds. It is surprising, however, how the treatment of hangings will affect the appearance of windows. If the windows are very small, it would be well to start experimenting with hanging the draperies so that they will extend beyond the window frame, exposing as much of the glass areas as possible, at the same time concealing all the wood. Possibly it might be desirable to scale down windows that are extremely wide. If so, try letting the hangings come flush with the outside edge of the trim and extending them a little way over the glass.

It is not advisable to consider valances in hospital decoration unless they happen to be made of wood. It is generally conceded, however, that extremely high windows will seem shorter if a deep valance is used. In like manner, short windows are made to seem longer by omitting all valances. It is well to remember, too, that curtains which fall to

the sill will tend to make the windows seem shorter than when they fall to the floor.

A word should be said about slip covers. Many an old chair donated to the hospital by some thoughtful friend, and worn threadbare, has assumed new importance when garbed in a gay slip cover and has been known to transform a room.

Rugs always contribute to creating a homelike atmosphere. Attempts have been made to get away from the small "throw" type and introduce a rug which will cover a greater floor area. Impractical, obviously, because of the need for frequent cleaning. It is possible, however, particularly in designing a room based on what are popularly known as "modern" lines to create a pattern which will extend from one small rug to two or three others adjoining it, thus providing the effect of a large floor covering, yet at no sacrifice to practicability.

With the color plan of the room worked out and the furniture selected, the arrangements must be considered. It is advisable to follow the lines of the room as much as possible. Rugs, especially small throw rugs should be placed parallel to the lines of the furniture and not diagonally. Long pieces, such as tables or beds should be against the longest wall, but must also be conveniently located for the requirements of patient, nurse and doctor.

Finally, every advantage should be taken of professional help that may be available. The services of a professional decorator will eliminate numerous pitfalls. Much valuable information, too, may be secured through the service departments of the leading paint concerns and fabric manufacturers. Studying manufacturers' bulletins will likewise contribute to a greater knowledge. It will soon be found, too, that acquiring such information will offer a fascinating avocation.

The Need for More Hospitals in Rural Areas

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AN ADEQUATE number of general hospitals of sufficient size to care for the needs of the people and within reasonable distance of them are necessary for good medical care and are essential facilities in any modern and progressive community.

Last year a study¹ of the distribution of hospital facilities by counties revealed that about 1,300 of the 3,073 counties in the United States contained no general hospitals at all. This suggested that there might be a lack of general hospitals in certain sections, but was not conclusive. Some counties do not need hospitals, being adequately served by hospitals in other counties. The county is a variable unit in both area and population and is usually too small for judging hospital facilities and needs.

A systematic analysis was made, therefore, of all of the local or community hospitals for acute conditions, excluding hospitals for nervous and mental, tuberculous, chronic and convalescent patients. Every such hospital was located on a county outline map, together with the population of the county and the number of physicians. Circles of a fifty-mile radius were described around all "hospital centers," that is, cities containing more than 250 hospital beds.²

Using these circles as general guides and taking into account mountains, rivers and road conditions as far as these were known or could be ascertained from road maps the areas served by

these hospital centers were blocked out following county lines. State boundaries were disregarded except insofar as they corresponded with physical barriers.

After determining the areas that are served by hospital centers, the balance of the counties were divided into reasonably compact and homogeneous hospital areas. The accompanying map illustrates the procedure in Alabama. For each such hospital area, whether it contains a center or not, tabulations were made of the total population, the total number of hospitals and of hospital beds and the total number of physicians. The ratios of hospital beds per thousand population and per physician were computed. In addition, the counties without any local hospitals for acute conditions were counted and the population and number of physicians in such counties ascertained. A sample of this procedure is shown for Alabama in Table I and summarized in Table II.

Ratio of 2 Beds per Thousand Is Minimum

To give the results greater practical application it was desirable to make an estimate of the number of additional hospital beds needed in the poorly supplied rural areas. After careful study it was decided to adopt a ratio of 2 beds per thousand persons as a minimum. While any ratio of this kind is subject to differences of opinion, the one chosen seems decidedly conservative. The Lee-Jones study of "The Fundamentals of Good Medical Care," made for the Committee on the Costs of Medical Care, arrived at a figure of 4.5 beds per thousand for maternity, medical and surgical cases. In various hospital and health surveys of large cities made during the last fifteen years a ratio of 5 beds per one thousand persons has been used.

Both of the above figures, of course, would be much too high for rural areas wherein people have not been accustomed to hospitals and wherein the migration of patients seeking specialized services would be almost entirely away from such areas. In Philadelphia in 1929, for example, 19

*The authors gratefully acknowledge the advice and cooperation of Dr. Michael M. Davis, director of medical services, Julius Rosenwald Fund, Chicago, in the planning and execution of this study.

¹Michael M. Davis, and others, "Proper Use of Government Funds for Hospital Care—A Symposium," The MODERN HOSPITAL, July, 1934, pp. 80-84.

²Population figures are for 1930. Probably the population figures are low and therefore the ratios slightly too high. Numbers of physicians were obtained from a distribution of physicians by counties on July 1, 1931, published by the American Medical Association. (Not available for later years). Hospitals were taken from the 1934 report of the A. M. A. The following classifications were included: cancer, cardiac, children, eye, ear, nose and throat, general, general and tuberculosis, industrial, isolation, institutional, maternity, maternity and children, orthopedic, skin and cancer and venereal. The group of "related institutions" was omitted. The hospitals maintained by the Veterans Bureau, U. S. Army, U. S. Navy and U. S. Public Health service were omitted because not usually available to the local population and the local medical profession. On the other hand, the general hospitals of the U. S. Bureau of Indian Affairs were included. In certain less populated areas of the Middle West and Pacific States, the number of beds considered necessary to constitute a hospital center was reduced to 200 and in the Rocky Mountain states to 150. For New York City, Chicago and Philadelphia a seventy-five-mile radius was used.

per cent of the patients cared for in the city's hospitals lived outside the city. Correcting for this factor would suggest a ratio of about 3 beds per thousand for other than metropolitan areas. On the other side it should be realized that rural patients cannot be discharged as early in their convalescence as can patients in urban areas where it is easy for the physician to call at the patient's home or return the patient to the hospital if necessary.

In Saskatchewan rural hospital service is provided through cooperation of provincial and municipal authorities. Experience there has dictated a ratio of 3 to 4 beds per thousand. In starting new hospitals in the Carolinas the Duke

Endowment recommends 1 bed per thousand persons as a beginning, with more when people become accustomed to using hospitals.

On the basis of a minimum of 2 beds per thousand, the maps were very carefully studied to determine how many additional beds would be needed. Each area was canvassed in detail and in a few instances, because of the distance involved, it was decided that additional facilities were necessary even though the ratio for the area as a whole was slightly more than the minimum. County boundaries were not considered as barriers and it was assumed that two or more counties would join, officially or unofficially, in providing facilities where necessary. The results for a

TABLE I—A SAMPLE WORK SHEET (ALABAMA) SHOWING HOW DATA WERE COLLECTED FROM THE MAPS

County	Pop.	Hosps.	Beds	M.D.'s	Beds/ Pop.	Beds/ M.D.'s
Area 1						
Lauderdale.....	41,130	1	60	37		
Colbert.....	29,860	1	75	26		
Lawrence.....	26,942	0	0	11		
Franklin.....	25,372	0	0	19		
Total.....	123,304	2	135	93	1.1	1.5
Without Hospitals.....	52,314			30		
Area 2						
Limestone.....	36,629	0	0	17		
Madison.....	64,623	1	75	46		
Jackson.....	36,881	1	20	16		
Morgan.....	46,176	1	44	37		
Marshall.....	39,802	1	24	27		
Total.....	224,111	4	163	143	0.7	1.1
Without Hospitals.....	36,629			17		
Area 3						
Marion.....	25,967	0	0	17		
Winston.....	15,596	0	0	12		
Lamar.....	18,001	0	0	19		
Fayette.....	18,443	0	0	10		
Pickens.....	24,902	0	0	18		
Tuscaloosa.....	64,153	1	80	71		
Total.....	167,062	1	80	147	0.5	0.5
Without Hospitals.....	102,909			76		
Area 4—Birmingham						
Cullman.....	41,051	0	0	28		
Walker.....	59,445	1	45	52		
Blount.....	28,020	0	0	15		
St. Clair.....	24,510	0	0	13		
Jefferson.....	431,493	8	1,454	560		
Shelby.....	27,576	0	0	18		
Talladega.....	45,241	3	146	34		
Total.....	657,336	12	1,645	720	2.5	2.3
Without Hospitals.....	121,157			74		
Area 5						
Dekalb.....	40,104	0	0	24		
Etowah.....	63,399	2	160	60		
Cherokee.....	20,219	0	0	9		
Calhoun.....	55,611	1	66	54		
Cleburne.....	12,877	0	0	5		
Clay.....	17,768	0	0	13		
Randolph.....	26,861	1	32	15		
Total.....	236,839	4	258	180	1.1	1.4
Without Hospitals.....	90,968			51		
Area 6						
Greene.....	19,745	0	0	10		
Hale.....	22,265	0	0	16		
Marengo.....	36,427	0	0	22		
Total.....	78,437	0	0	48	0.0	0.0
Without Hospitals.....	78,437			48		
Area 7—Selma and Montgomery						
Bibb.....	20,780	0	0	18		
Chilton.....	24,579	1	30	16		
Coosa.....	12,460	0	0	5		
Elmore.....	34,280	0	0	20		
Autauga.....	19,694	0	0	10		
Perry.....	26,385	0	0	11		
Dallas.....	55,094	5	222	51		
Wilcox.....	24,880	0	0	22		
Lowndes.....	22,878	0	0	7		
Montgomery.....	98,671	2	165	108		
Macon.....	27,103	1	75	43		
Bullock.....	20,016	0	0	10		
Total.....	386,820	9	492	321	1.3	1.5
Without Hospitals.....	181,373			103		
Area 8						
Tallapoosa.....	31,188	1	54	21		
Chambers.....	39,313	1	15	18		
Lee.....	36,063	1	30	27		
Russell.....	27,377	0	0	7		
Barbour.....	32,425	2	100	22		
Total.....	166,366	5	199	95	1.2	2.1
Without Hospitals.....	27,377			7		
Area 9						
Escambia.....	27,963	2	39	20		
Monroe.....	30,070	0	0	22		
Conecuh.....	25,429	0	0	13		
Clarke.....	26,016	1	14	20		
Washington.....	16,365	0	0	6		
Total.....	125,843	3	53	81	0.4	0.7
Without Hospitals.....	71,864			41		
Area 10						
Butler.....	30,195	2	55	16		
Crenshaw.....	23,656	0	0	15		
Pike.....	32,240	2	65	24		
Covington.....	41,356	2	65	27		
Total.....	127,447	6	185	82	1.5	2.3
Without Hospitals.....	23,656			15		
Area 11—Dothan (Three Florida Counties)						
Henry.....	22,820	0	0	15		
Dale.....	23,175	0	0	20		
Coffee.....	32,556	1	19	19		
Geneva.....	30,104	0	0	19		
Houston.....	45,935	3	204	37		
Holmes, Fla.....	12,924	0	0	7		
Washington, Fla.....	12,180	0	0	8		
Jackson, Fla.....	31,969	1	12	18		
Total.....	211,663	5	235	143	1.1	1.6
Without Hospitals.....	101,203			69		
Area 12—Mobile (Two Mississippi Counties)						
Baldwin.....	28,289	0	0	21		
Mobile.....	118,363	3	314	131		
George, Miss.....	7,523	0	0	6		
Jackson, Miss.....	15,973	1	27	13		
Total.....	170,148	4	341	171	2.0	2.0
Without Hospitals.....	35,812			27		

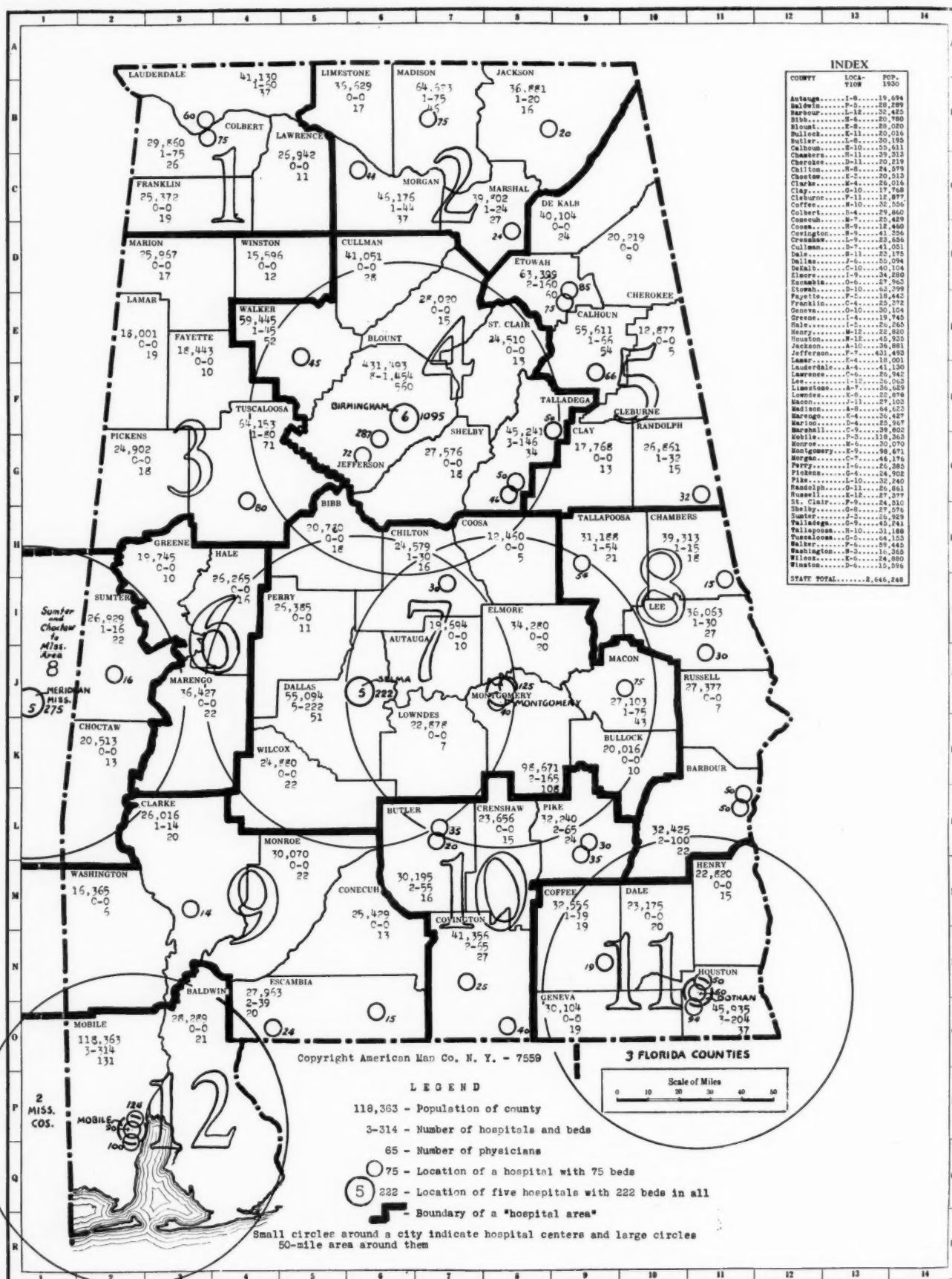


TABLE II—A SAMPLE STATE SUMMARY (ALABAMA)

Area	Total Area							Counties Without Hospitals			
	No. Co.'s	Pop.	Hosps.	Beds	M.D.'s	Beds/Pop.	Beds/M.D.'s	No.	Pop.	M.D.'s	Additional Hospital Beds Needed
No. 1.....	4	123,304	2	135	93	1.1	1.5	2	52,314	30	110
No. 2.....	5	224,111	4	163	143	0.7	1.1	1	36,629	17	285
No. 3.....	6	167,062	1	80	147	0.5	0.5	5	102,909	76	255
No. 4—Birmingham.....	7	657,336	12	1,645	720	2.5	2.3	4	121,157	74	0
No. 5.....	7	236,839	4	258	180	1.1	1.4	4	90,968	51	215
No. 6.....	3	78,437	0	0	48	0.0	0.0	3	78,437	48	155
No. 7—Selma and Montgomery..	12	386,820	9	492	321	1.3	1.5	8	181,373	103	280
No. 8.....	5	166,366	5	199	95	1.2	2.1	1	27,377	7	140
No. 9.....	5	125,843	3	53	81	0.4	0.7	3	71,864	41	195
No. 10.....	4	127,447	6	185	82	1.5	2.3	1	23,656	15	70
No. 11—Dothan (a).....	8	211,663	5	235	143	1.1	1.6	5	101,203	69	185
No. 12—Mobile (b).....	4	170,148	4	341	171	2.0	2.0	2	35,812	27	0
Sumpter and Choctaw Co.'s (c)...	..	..	..	..	..	..	..	..	..	..	15
Total.....	70	2,675,376	55	3,786	2,224	1.4	1.7	39	923,699	558	1,935

(a) 11 includes three Florida counties.
 (b) 12 includes two Mississippi counties.
 (c) Part of Area 8 of Mississippi.

sample state are shown in the last column of Table II.

Turning now from the sample state to the country as a whole we find that, in all, over 31,000,000 persons and nearly 29,000 physicians live in areas that contain less than two beds per thousand persons and that are more than fifty miles from any important hospital center. This is nearly one-third of the entire population of the United States and almost one-fifth of the total medical profession.

There are 1,117,915 persons and 896 physicians living in areas that have less than 0.5 hospital beds per thousand (Table III). These areas are all in the two South Central sections (Kentucky, Tennessee, Mississippi, Alabama, Texas, Oklahoma, Arkansas and Louisiana). The areas with

0.5 to 0.9 hospital beds per thousand persons are much more extensive. They contain 6,568,999 persons and 5,441 doctors, more than one-half of whom are in the two South Central sections.

For the United States as a whole about 22,000 additional hospital beds are needed to meet the minimum standards here used (Table IV). This figure does not assume that hospital facilities will be provided in all parts of the most sparsely populated states. It is assumed that where the population is very thin it will not be feasible to establish a full-fledged hospital. Instead these areas could be served by small medical center buildings or (to use the English term) cottage hospitals, providing office accommodations for physicians and a dentist; space for the office of the local public health officer and for public health

TABLE III—POPULATION AND NUMBER OF PHYSICIANS IN "HOSPITAL AREAS" WITH SPECIFIED RATIOS OF HOSPITAL BEDS PER 1,000 PERSONS

Section	0.0-0.4		0.5-0.9		1.0-1.4		1.5-1.9		2.0-2.4		2.5-2.9	
	Pop.	M.D.'s	Pop.	M.D.'s	Pop.	M.D.'s	Pop.	M.D.'s	Pop.	M.D.'s	Pop.	M.D.'s
New England.....	..	..	..	..	..	..	100,535	109	355,915	407	169,855	220
Middle Atlantic.....	..	..	..	..	..	..	581,237	618	1,053,544	970	5,578,635	6,164
East North Central.....	..	..	297,575	300	872,180	1,260	2,229,227	2,509	2,717,318	3,072	6,294,418	7,967
West North Central.....	..	..	844,532	795	1,138,394	1,103	2,763,205	3,027	1,421,868	1,155	1,197,282	1,351
South Atlantic.....	..	..	903,237	680	2,295,499	1,653	5,463,222	5,065	2,385,794	2,680	1,805,180	1,772
East South Central.....	1,005,755	798	1,550,724	1,173	3,072,290	2,399	790,420	701	2,116,257	2,577	1,595,348	2,038
West South Central.....	112,160	98	2,947,720	2,473	1,356,799	1,259	2,355,041	2,365	1,779,501	2,262	1,929,552	2,506
Mountain.....	..	..	25,211	20	274,397	241	143,747	139	357,247	307	322,095	328
Pacific.....	..	..	..	..	..	..	..	..	354,437	382	65,086	71
United States Total.....	1,117,915	896	6,568,999	5,441	9,009,559	7,915	14,426,634	14,533	12,534,881	13,812	18,957,362	22,421

Section	3.0-3.4		3.5-3.9		4.0-4.9		5.0-7.8		Total	
	Pop.	M.D.'s	Pop.	M.D.'s	Pop.	M.D.'s	Pop.	M.D.'s	Pop.	M.D.'s
New England.....	1,455,978	1,762	557,914	722	2,222,850	3,006	2,774,237	4,788	7,637,284	11,014
Middle Atlantic.....	902,634	1,158	2,272,249	3,113	16,793,983	26,800	..	..	27,184,282	38,821
East North Central.....	2,307,958	2,805	814,890	880	6,353,053	10,010	1,934,139	3,888	23,820,758	32,691
West North Central.....	624,768	533	1,219,217	1,971	2,695,511	4,381	1,646,389	2,672	13,551,166	16,911
South Atlantic.....	106,596	164	470,788	647	1,904,098	4,110	..	..	15,334,414	16,771
East South Central.....	..	..	..	..	..	..	..	..	10,130,794	9,389
West South Central.....	766,762	942	..	..	716,700	972	..	..	11,955,235	12,877
Mountain.....	198,459	174	866,979	951	948,519	1,606	512,007	686	3,648,572	4,452
Pacific.....	3,637,672	6,397	1,007,077	1,345	1,625,409	2,052	1,535,531	3,073	8,225,212	13,323
United States Total.....	10,000,827	13,935	7,209,114	9,629	33,260,123	52,937	8,402,303	15,107	121,487,717	156,625

nurses; simple x-ray and clinical laboratory facilities; telephone and administrative space, and a very few beds for temporary care of patients but no facilities for surgery except such as a physician would probably do in his own office. There might be a few beds for the overnight care of emergency or diagnostic cases, but as a rule the care of bed patients would be provided in a true hospital serving the area.

As would be guessed from Table III, the 22,000 additional beds are needed more in some sections of the country than in others. The East South

TABLE IV—ESTIMATED ADDITIONAL HOSPITAL BEDS NEEDED TO MEET MINIMUM STANDARDS

Region	No. of "Hospital Areas" Needing Additional Beds	No. of Additional Beds Needed
New England.....	0	0
Middle Atlantic.....	1	70
East North Central.....	14	1,755
West North Central.....	21	2,690
South Atlantic.....	37	4,815
East South Central.....	31	6,615
West South Central.....	31	5,710
Mountain.....	9	385
Pacific.....	3	150
United States Total.....	147*	22,190

*This number does not necessarily indicate the number of hospitals needed.

Central states have the largest need, followed by the West South Central, the South Atlantic, West North Central and East North Central in the order named. Individual states that have large needs are Texas, Alabama, Tennessee, Georgia, Mississippi, Kentucky, Missouri, Louisiana, Arkansas, Oklahoma and North Carolina. These are, in general, states with a relatively high percentage of Negroes and relatively low gross per capita incomes. There are also sections of other states which show serious deficiency of hospital facilities, for example, Western Kansas and parts of Virginia, South Carolina, Illinois, Ohio, Indiana and Florida.

No attempt was made in this study to locate hospitals specifically as this would be possible only on the basis of careful study of all significant local factors. It may be assumed that in a certain number of cases existing hospitals could be enlarged to provide the needed minimum number of beds. Usually it is better, from an economical and a clinical point of view, to have one hospital of thirty beds than two of fifteen beds each. Whenever possible, hospitals should have twenty-five or thirty beds as a minimum. The development of these rural hospitals should be closely correlated with the development of needed public health services in these areas.

A casual perusal of occupancy ratios for 1933 of the existing hospitals even in some of the most poorly provided sections reveals that they had many empty beds. This does not indicate that the need for hospital facilities is nonexistent, but rather that large groups of people either did not know what they needed or, knowing it, could not afford to pay for it on the present basis.

Obviously the question of providing more hospital facilities has two aspects: the physical or scientific, and the economic. This study is directed primarily toward the former and the question of how the hospitals built in rural areas which are now poorly served would be financially supported is deferred to a later discussion.

Before actually locating a hospital, however, consideration must be given to the following factors affecting scientific as well as economic questions: (1) size of population; (2) size of area to be served; (3) density of population; (4) number and training of physicians in the area; (5) extent to which the provision of hospital facilities would improve conditions of medical practice through assisting present practitioners or attracting new ones; (6) distance to other hospitals; (7) road conditions, summer and winter; (8) the health knowledge of the people and the extent to which they could be trained to use hospitals when necessary; (9) the suitability of home conditions for caring for less serious illnesses; (10) financial resources of the population, that is, occupational and income groupings, and the extent to which new methods of paying for medical service may be devised which will facilitate support of rural hospitals.

Canadians Favor Grading of Rural Hospitals

Rural hospitals should be graded according to the type of work they are capable of doing. Definite medical supervision should be placed over them to see that they do not attempt work too specialized for their limited staff and equipment. There should also be some medical supervision over the doctors who use the hospitals, particularly the ones who do surgery.

The foregoing opinion of Dr. F. W. Jackson, deputy minister of health of Manitoba, is supported by Dr. F. E. Coy of Invermere, B. C., who has made an extensive survey of rural hospitals. He states:

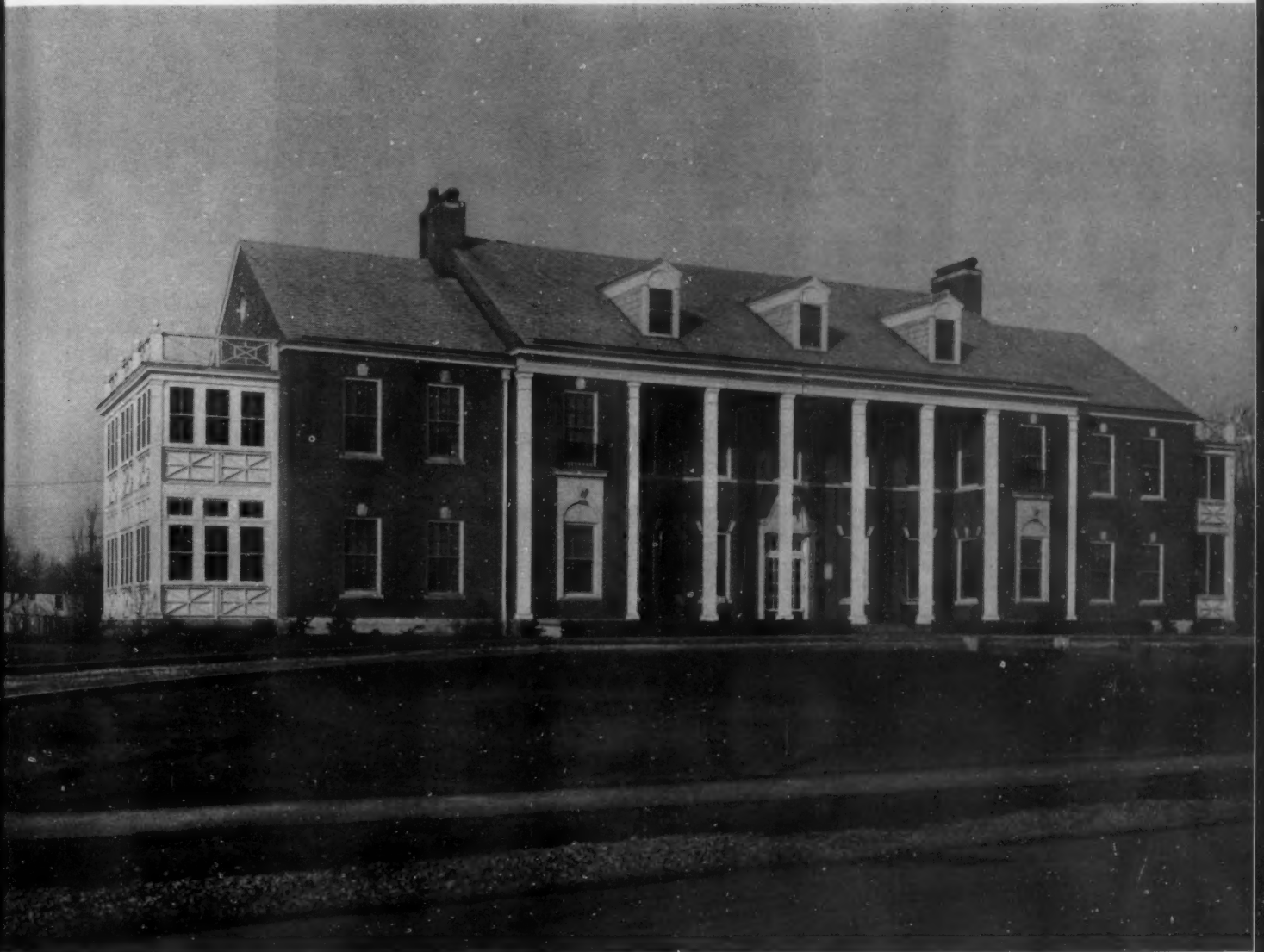
"The grading of small hospitals would result in better work being done. Better records would be kept and it would be a good stimulus to all workers in the hospital. Hospitals should be classed according to the number of beds and be graded in their class but not compared to the larger institutions.

A committee of the Canadian Hospital Council hopes "that the day will soon come when our smaller hospitals will be graded according to their physical and professional capabilities."

PORTFOLIO OF PLANS OF SMALL HOSPITALS

RUTHERFORD HOSPITAL, MURFREESBORO, TENN.

BERLIN & SWERN, ARCHITECTS, CHICAGO



Rutherford Hospital

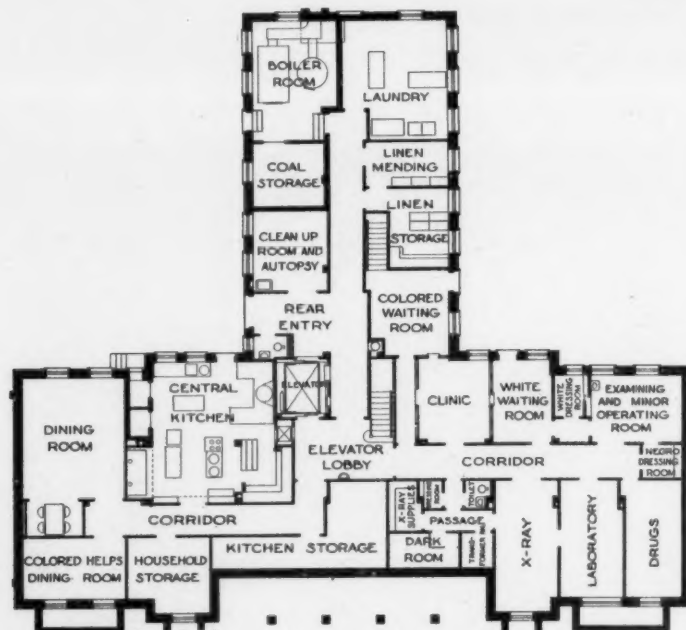
Murfreesboro, Tenn.

THIS 44-bed institution was built to serve a population of 33,000 at a total cost of \$184,019. The building itself cost \$121,779, the land \$10,000 and the equipment \$35,633. The average cost per bed, excluding the cost of the land, was therefore \$3,955. It was designed by Berlin & Swern, Chicago.

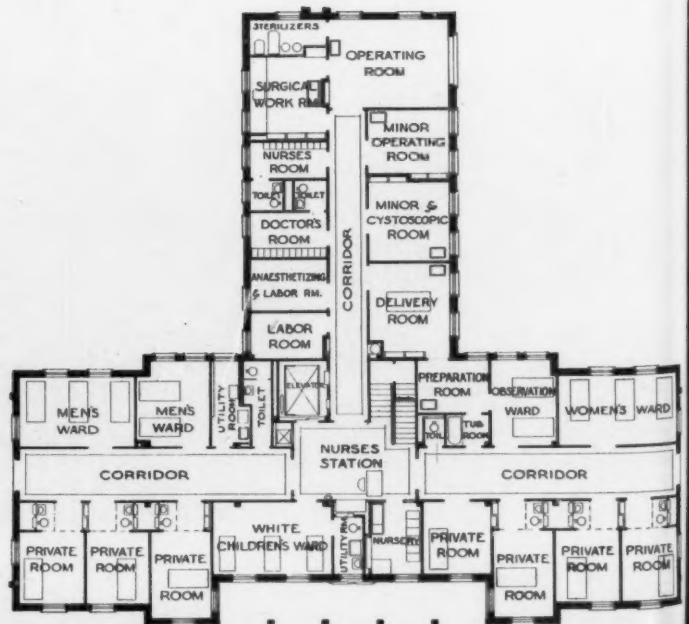
COMMENT: A most attractive exterior envelops a very practical plan. That the quite evident pressure to secure bed capacity has led to some questionable planning should not obscure the fact that this hospital will repay careful study. Eleven beds out of the forty-four are set aside for children—a proportion rarely justified. The excellent relationship between the waiting room for Negroes in the base-

ment (apparently a full story in the rear) and the Negro ward on the first floor should be noted. Porches are at either end of the front wing.

Four glazed-in solariums accessible only to twenty-six white patients seem excessive. The absence of quiet rooms in the Negro section is to be regretted. Many would object to the placing of the head of the bed against the outside walls as is done in so many of these rooms and wards. Such an arrangement is the only feasible one where the rooms fall much below the generally accepted standard of 80 square feet per bed as they do here. Storage space is at a minimum and the number of operating and birth rooms seems large. But withal here is an excellent small hospital.



Right, basement; below, left, first floor, right, second floor.





Headlee Hospital Odessa, Texas

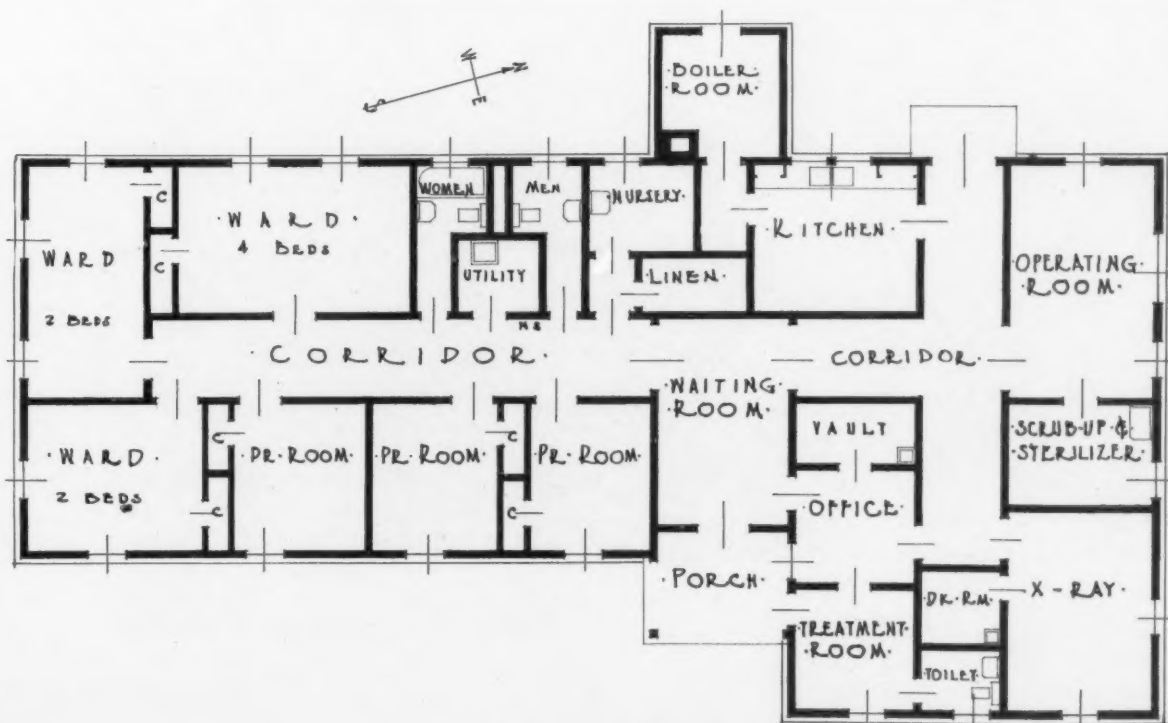
A NINE-BED hospital for \$1,000 per bed, excluding the cost of land and movable equipment, is the achievement of this new institution. The building with all fixed equipment cost \$9,000 and the land \$500. Albert H. Boren, Dallas, Tex., was the architect.

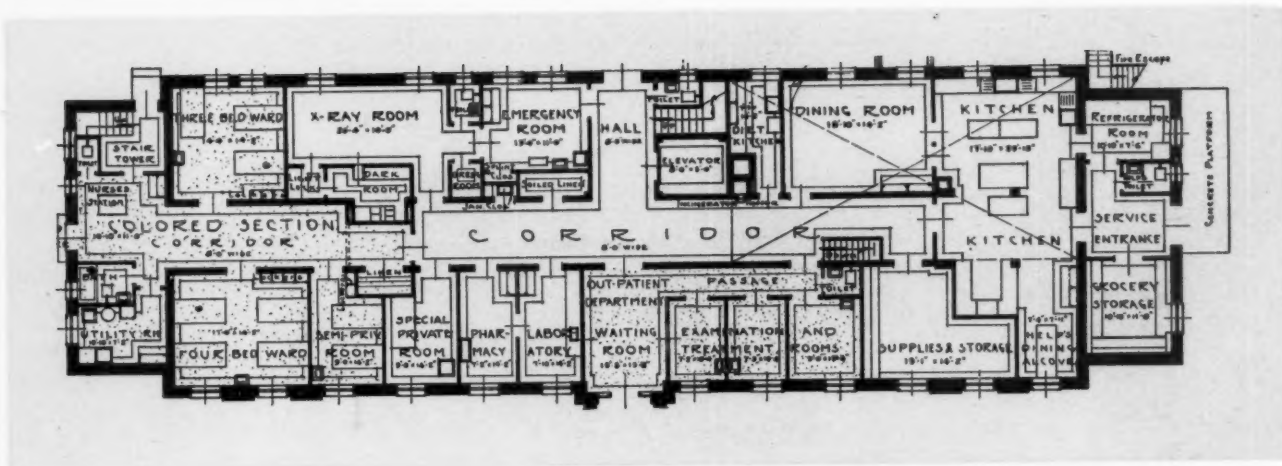
COMMENT: This hospital, lovely in appearance, is also well planned. Doctor Headlee is to be congratulated on his choice of architects, and Mr. Boren for his courage in not sinking himself in the swamp of hospital precedent—little of which as published has anything to do with hospitals of this size. Although the plan shows eleven beds, the four-bed ward is so small (48 square feet per bed) that the true capacity is nine beds.

The frame construction may justly be criticized. But

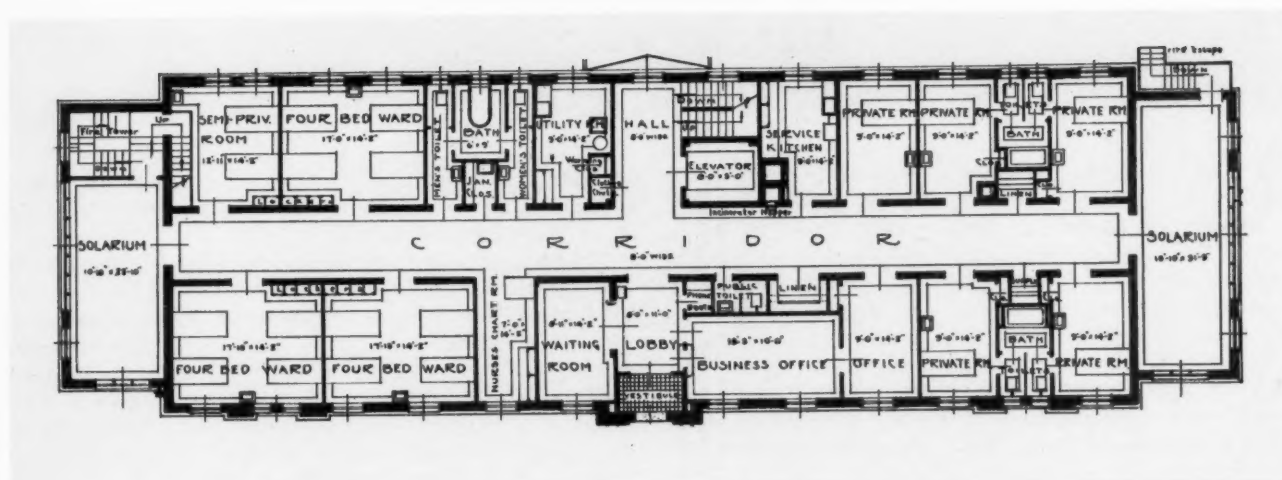
if the choice lies between frame construction and no hospital, then we must have frame. Better, though not necessarily more, exits should be provided, however. Certainly there should be one at the south end.

The location of the kitchen and its doors is unhappy. If the kitchen and boiler room were revolved so that the kitchen adjoined the nursery, and if the waiting room were reduced in size by letting the corridor continue uninterrupted, food service could be kept away from the medical services. The absence of a dining room is curious. The entrance to the treatment room can be justified only by supposing that this is Doctor Headlee's private office. A utility room without an outside window is questionable. There seems to be a serious shortage of storage space.

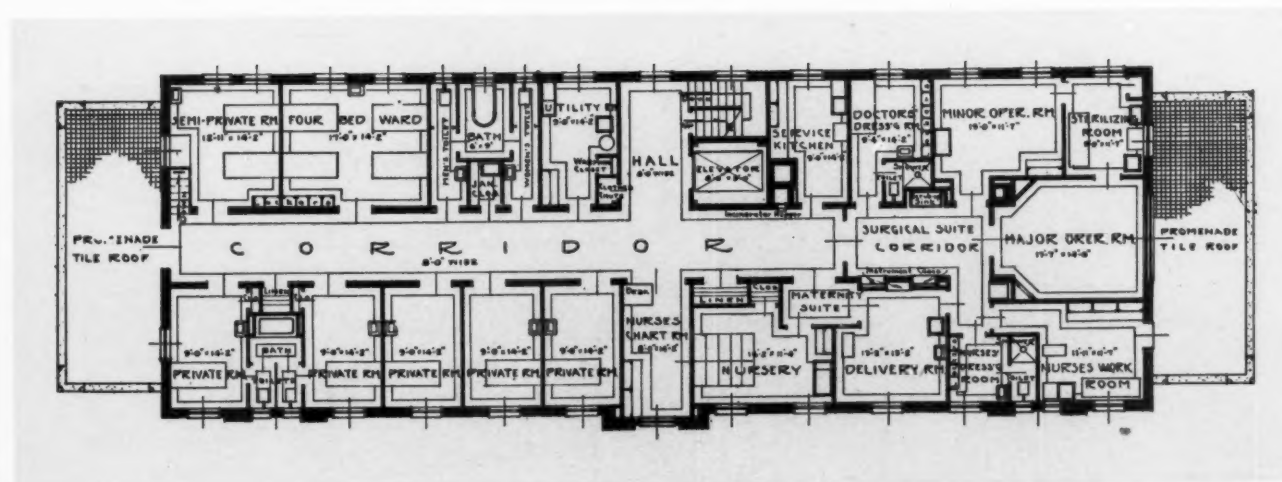




First floor, Randolph Hospital, Asheboro, N. C.



Second floor.



Third floor.



Randolph Hospital Asheboro, N. C.

THIS Duke Foundation hospital is given a rated capacity of forty beds and ten bassinets. It was built to serve a population of 36,000. The total cost was \$132,321, divided as follows: building, \$96,652; equipment, \$18,030, and site, \$17,639. Eric G. Flannagan of Henderson, N. C., was architect. The cost per bed, excluding site, on a forty-bed basis is \$2,867 and on a 32-bed basis (see below) \$3,584.

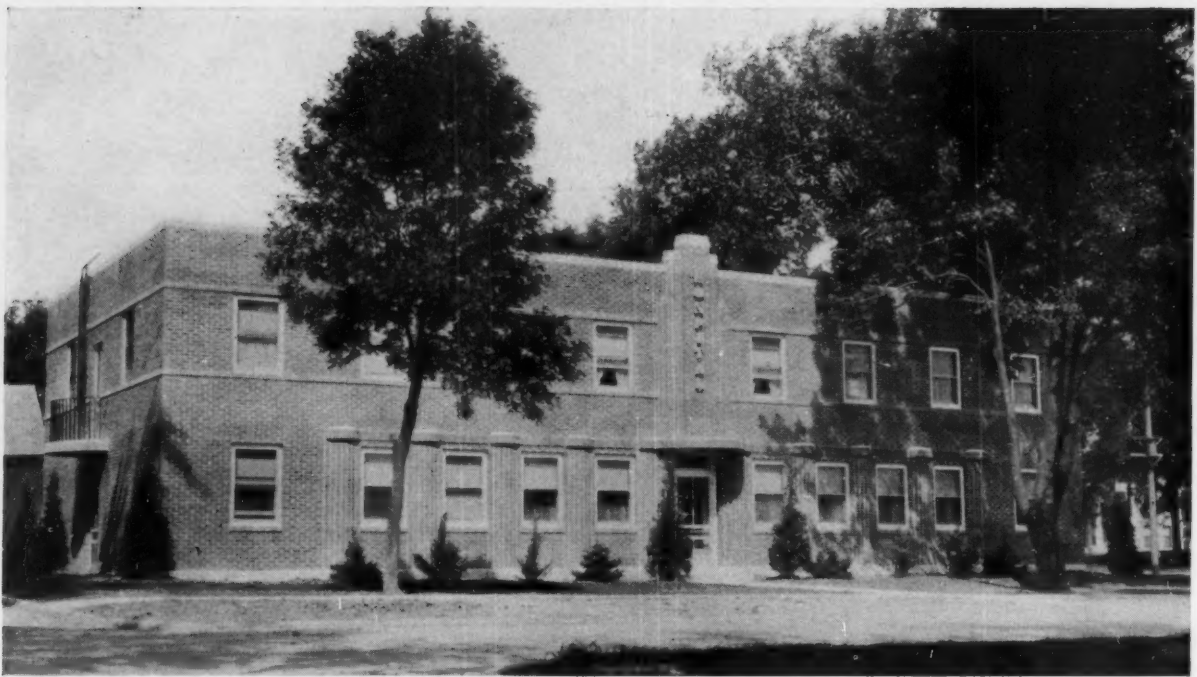
COMMENT: This is a well studied plan of the multi-storied small hospital. While it is stated to have a capacity of forty beds, there are two-bed rooms with but $57\frac{1}{2}$ square feet, three-bed rooms with but 68 square feet, and four-bed rooms with $60\frac{1}{2}$ square feet per bed. Using the standard of 80 square feet per bed, this hospital should be reduced from forty beds to 32 beds, plus the nursery.

The patients are divided among the three floors, consequently there must be three repetitions of service rooms

in addition to the area assigned to elevators and stairs. The efforts to make the first floor usable for auxiliary rooms has forced the main entrance an entire story off the ground. Might it not have been better to have pushed the Negro section up one story where it could be just as well isolated as it is, and dropped the entrance an entire story, thereby reducing the nursing units to two instead of three? The emergency room seems to be an unnecessary luxury. The x-ray room and adjoining dark room seem large in view of the obvious shortage of storage space. The midget diet kitchen might well have been merely a part of the kitchen. The delivery room is small and the adjoining nursery too large. The multiplicity of rooms in the operating and delivery section is at the expense of convenience in working. Two solariums on the second floor and none on the first and third seems an illogical plan.



*The nurses'
home.*



Irish Hospital Forest City, Ia.

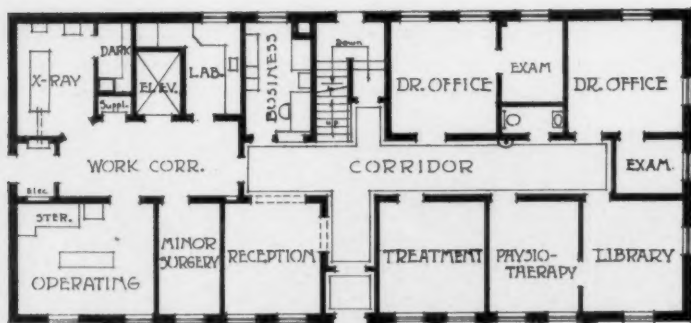
THIS twelve-bed institution is both a small hospital and a clinic. While it is privately owned, the facilities are open to any reputable physician. It serves a rural community of about 12,000 persons. The building was erected during 1934 at a total cost of \$18,250, including the architect's fee, but excluding land and equipment. Much of the work was done by local labor on the basis of 50 per cent

cash and 50 per cent credit on bills due the original Irish Hospital. Cooking in the hospital is done by the nurses, with the assistance of the maid. A staff of three graduate nurses, an office nurse, a janitor and a maid is employed. No contagious, mental or incurably chronic patients are admitted. Thorwald Thorson of Forest City was the architect.

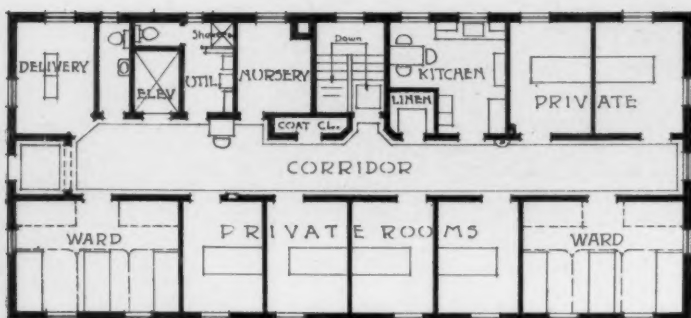
COMMENT: The purpose of this hospital is similar to that of the Headlee Hospital at Odessa, Tex., so that a comparison of these two doctor owned hospitals is interesting. The space assigned to offices is larger in this one, but otherwise they are very much the same. Both in first cost and operation, the one-story Headlee Hospital is probably the more satisfactory. This is, however, an excellent plan for those who feel their needs will be better met by a multistory building.

This is one of the two plans in this group with sufficient area in the wards—80 square feet when used for three beds. The plans themselves illustrate how hopeless they would be when filled to their emergency capacity of five beds, or 64 square feet per bed. The kitchenette kitchen, the miniature 9 by 13 feet delivery room, the ingenious combination of patients' toilet and bath with utility room are debatable. The reason why a hospital of this size should rate two operating rooms and a delivery room is difficult to understand when many essentials are skimmed or missing. Prudence suggests a second stairway or a fire escape from the upper floor.

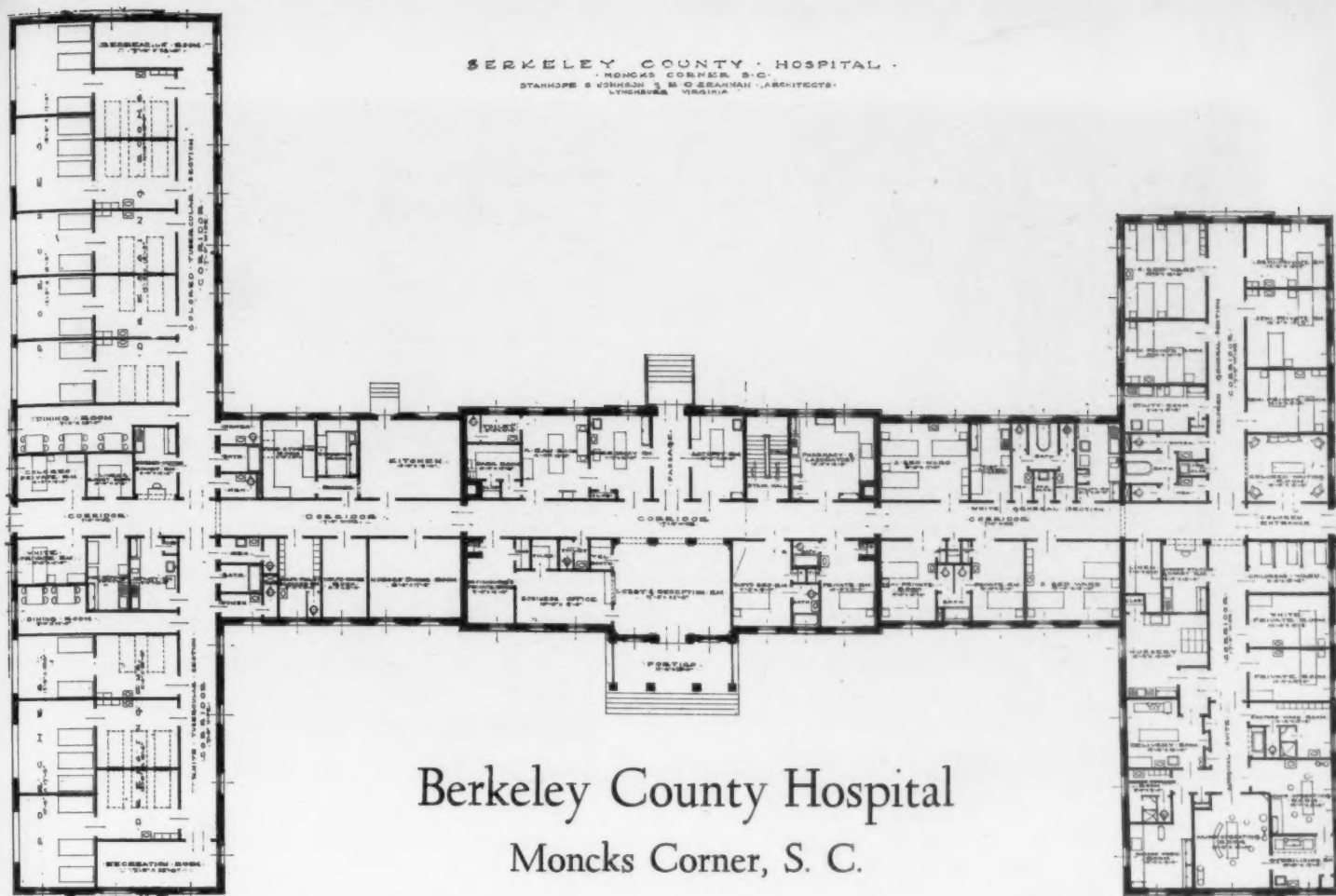
The exterior is attractive and very pleasing in its simplicity.



First floor.



Second floor.



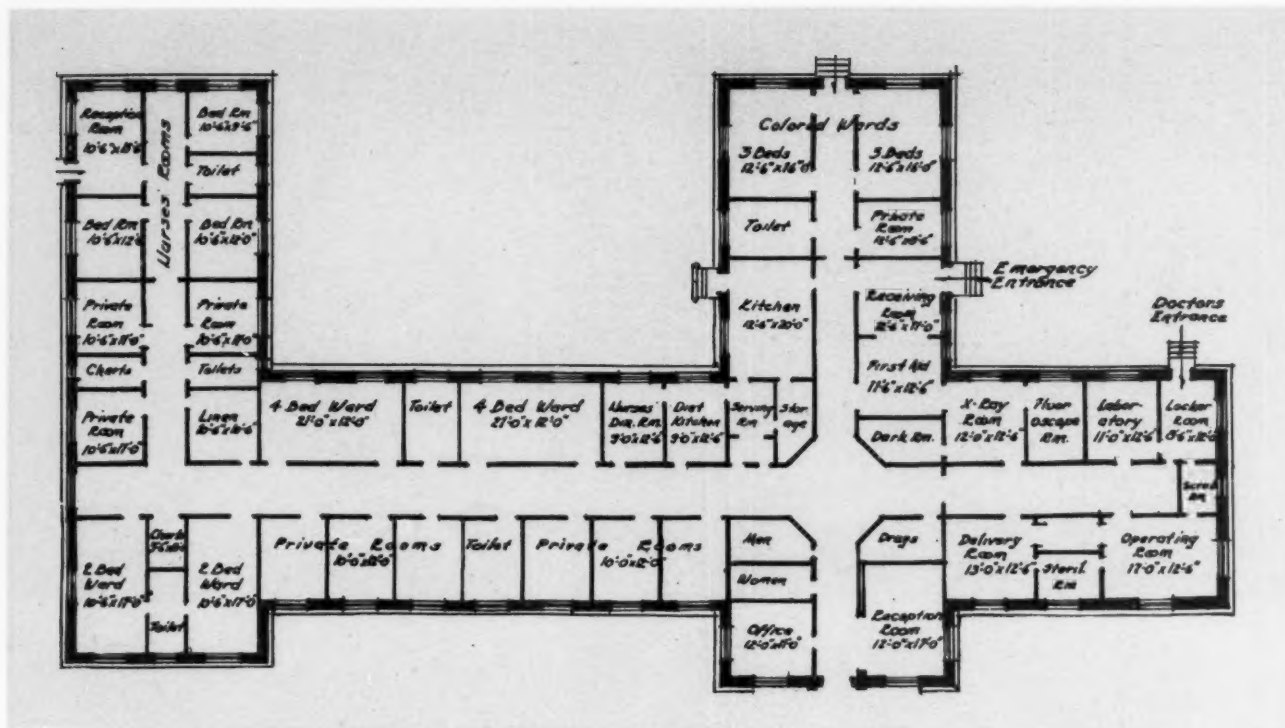
A NEGRO population of 17,000 and a white population of only 5,000 are served by this 49-bed hospital. It has, in addition, eight bassinets. The hospital occupies a wooded tract of four and one-half acres. It is of fireproof construction, one story in height except for the central portion, which is two stories to accommodate nurses. The building itself cost \$100,734, the equipment \$25,433 and the site \$3,371, giving a grand total of \$129,538. The cost per bed, excluding land, was \$2,554. The architects were Stanhope S. Johnson and R. O. Brannan of Lynchburg, Va.

COMMENT: This is the most attractive and best planned of the eleven published hospitals sponsored by the Duke Foundation. It has a commendable peculiarity in providing twenty-two beds for the tuberculous out of the total of forty-nine beds. Flexibility would be greatly improved if

the section for the tuberculous directly adjoined the general section. The position of the necropsy room directly opposite the main entrance has undoubtedly been changed. The absence of quiet rooms in the section for Negro patients is to be deplored. The diet kitchen might be eliminated, especially if the kitchens were shifted to the general hospital side. The common nurses' station provided for the Negro and white sections of the hospital makes one curious as to why two sets of utility rooms.

Comments about ward areas, size of birth and delivery rooms, emergency room and x-ray room made on the Randolph Hospital apply equally to this institution. The principle upon which the planning of the tuberculosis section is based cannot be too severely condemned in spite of the fact that a national association appears to approve of it.





Douglas Hospital Douglas, Ga.

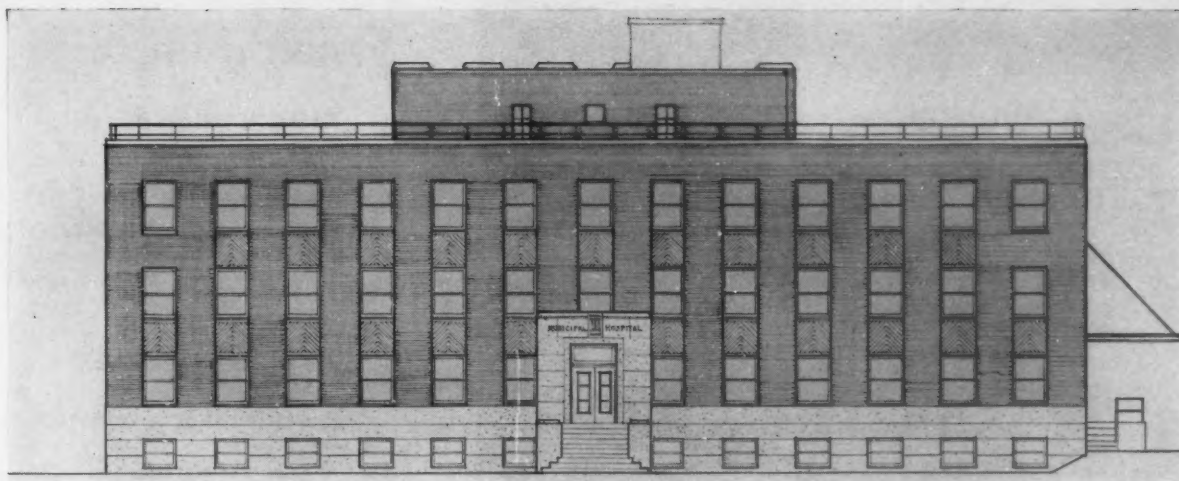
WORK is now under way on this twenty-three-bed hospital to serve a town of about 5,000 population and the surrounding community. It is estimated that the hospital will cost \$22,000, including equipment, but not including land which was donated by the city. The cost per bed, therefore, will be \$956. The institution is to serve both white and Negro patients. It was designed by J. M. Thrash, Jr., a student of architecture at Georgia School of Technology. It is not of fireproof construction.

COMMENT: The charm of the very simple exterior bodes well for this hospital. There is no aping of Gargantuan hospitals—just a simple structure hugging the earth from which it has sprung. Nor does the plan let us down. Excellent is the distinct segregation of the major elements of the problem—medical services, white patients' and

nurses' quarters and the offices. Wouldn't the Negroes, however, be just as well segregated and much better serviced if closer to the other patients?

The absence of utility rooms is hardly compensated by the larger toilet rooms. Charting rooms are curiously placed and of questionable value. The absence of any conveniences for the help, the subdivision of the otherwise ample kitchen area into many small rooms, the unnecessary emergency suite, division of the area assigned to x-ray into two rooms when one would have been better, and many similar details, it is hoped can be remedied before building commences. The architect only claims to have twenty-seven beds though the plan shows twenty-eight. It should, however, be rated as twenty-three-bed capacity as the four and three-bed wards are too small. The costs are very low.





Municipal Hospital Virginia, Minn.

THIS fifty-bed brick and concrete fireproof hospital now under construction will cost about \$245,400 in all, \$17,000 of it for movable equipment and \$15,000 for land. The cost per bed, excluding land, is \$4,600, and the cost per cubic foot approximately \$0.72. The heating plant, with automatically controlled stokers, is in a separate building.

The floors are terrazzo with a rubber tile aisle in the corridors. Acoustical treatment is specified for corridors, nursery, delivery room, utility rooms and diet kitchens. An automatic electric elevator and an electric dumb-waiter serve all floors. The day rooms on the west overlook a fine park and give a distant view in two directions.

Air conditioning is planned for the operating rooms. A completely equipped laundry will be provided and radio

will be installed in some parts of the hospital. The sterilizers and water still are automatically controlled.

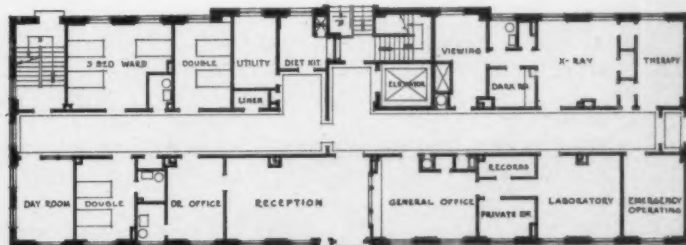
J. Albert Coddling of Virginia, Minn., is the architect, with Erickson & Co. of Duluth, Minn., as associates.

COMMENT: Here we have an excellent small hospital cut to the conventional big city pattern. Perhaps because it is a municipal hospital, six private rooms out of forty-four may be the proper proportion, but 15 per cent in private rooms would hardly seem to be enough for very sick patients.

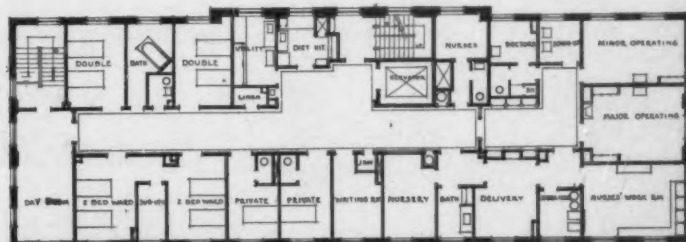
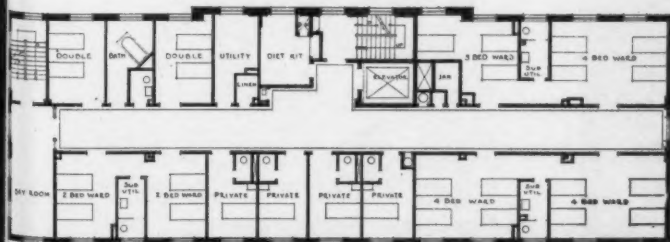
The extremely large x-ray department, kitchen and dining rooms and the inexplicably large fourth floor only emphasize the absence of an isolation department. Why not interchange the operating department with the first floor patients' unit, thus simplifying nursing and treatment?



Above, basement floor; below, second floor.



Above, first floor; below, third floor.





The Presbyterian Sanatorium

Albuquerque, N. M.

THIS new fifty-bed unit of the Southwestern Presbyterian Sanatorium is devoted primarily to the surgical treatment of tuberculosis. While it is administered as part of the whole institution, this unit is complete in itself in all respects except for food service, the food being sent over from the main kitchen.

The present building was erected in two sections at different times. The first section was the Maytag tuberculosis research laboratory built a few years ago. Then it was decided to convert the laboratory into a complete hospital unit. This was done by remodeling and extending the original building.

The building is of fireproof construction and is faced with stone. The sash of steel are extra large and have large openings for ventilation. The floors are of mastic tile with composition base and border.

The total cost of the present building was about \$165,000, including the original building and the additions and remodeling. About twenty of the rooms are built on the "Bacon plan" with an isolation vestibule arrangement. Berlin and Swern, Chicago, designed the later part of the building.

Other Small Hospital Plans

In recent years *The MODERN HOSPITAL* has published many articles dealing with the planning and construction of small hospitals. Following are references to articles published in 1932, 1933 and 1934:

	<i>Beds</i>
How One Sanatorium Was Built to Serve Two Counties, Stanley W. Cassidy, Feb., 1932, p. 73	42
Modern Hospital Serves Connecticut Hill Towns, Raymond P. Sloan, Nov., 1933, p. 47.....	44
Pledges From 4,000 Persons Built This Modern Hospital, F. M. Shields, April, 1933, p. 69....	36
New Private Hospital in Beirut Adopts American Methods, Amin A. Khairallah, M.D., April, 1933, p. 57.....	50
A Hospital Designed to Meet the Needs of a Small Town, Edward J. Peters, Jan., 1933, p. 73	30
The Institutional Hospital, Francis Willard Puckey and Austin D. Jenkins, Nov., 1934, p. 69	22
In Eaton County They Call It "Our Hospital," Raymond P. Sloan, Sept., 1934, p. 54.....	12
Montreal Children's Hospital—Before and After, Huntley Ward Davis, April, 1934, p. 85.....	40
Log Cabin in Wyoming Serves as St. John's Hospital, Raymond P. Sloan, March, 1934, p. 67	25
"The House on the Hill," Raymond P. Sloan, March, 1934, p. 67.....	41



What Farmers Think

By CARROLL P. STREETER

Field Editor, *Farmer's Wife*, St. Paul, Minn.

TWICE within the last five years the *Farmer's Wife*, national farm women's magazine, has sounded out farm women's sentiment about the adequacy of their hospital facilities. Back in 1929 it polled 860 of them, selected at random, and a few months ago sent a brief questionnaire to 100 outstanding farm women who are known as Master Farm Homemakers. These queries have been in addition to personal talks with many farm women.

The number of women is too small to justify conclusive statements, but at least the opinions can be taken as straws in the wind. The fact that 80 of the 100 Master Farm Homemakers took time, a week before Christmas, to answer the questionnaire at all indicates their interest. Their opinions are believed to be especially significant because these women are community leaders. They have all been given public recognition at state agricultural colleges as representing the best in American rural homemaking. Sooner or later their neighbors will feel the way they do now.

First let us consider their views on whether small hospitals near home are preferable to larger and better ones farther away. They feel that both are necessary — the one for treatment of ordinary ailments and to give service in emergencies, the other for more difficult cases. They see the two as complementary parts of the same system.

Prefer Small Local Institution

If, however, they can have only one right now, most of them would prefer the smaller institution close at hand. They want a place easy to reach, where there is an air of informality and neighborliness and where their friends can come to see them readily. Furthermore, they realize that having a hospital near by means having a doctor near by, and nearness means something when you are paying a dollar a mile for the doctor's trip.

Farm women think that their families should not be more than ten to twenty-five miles from some sort of hospital, even though it be small. Or, as more of them put it, "Not more than an hour away, even in bad weather."

Living within an hour's journey of a hospital is often more a matter of road conditions than of miles. "Folks who live in cities are inclined to for-

Good roads — small hospitals of ten to twenty beds near by, as well as better ones fifty to seventy-five miles distant — tax support for hospitals — some insurance plan for paying hospital bills — these things most farm folk want, judging by what they have been telling the "Farmer's Wife"

get how country roads can get," as Mrs. A. H. Beebe of Logan, Iowa, pointed out. "Better roads are, in fact, our greatest hospital need. You can be in a very desperate situation when only ten miles from a hospital if you are mired down in black gumbo."

Some persons have dismissed the whole problem of availability of rural hospitals and doctors with the glib statement that "now that we have better roads and more automobiles, twenty-five miles means no more than five miles used to." But some farmers do not have automobiles or telephones. And according to the 1930 census the percentages of farmers living on various kinds of roads were as follows: on hard surfaced roads, 10 per cent; on graveled roads, 21.5 per cent; on dirt roads, 68.5 per cent. And of the 68.5 per cent living on dirt roads, more than half were living on "unimproved dirt roads." Presumably the situation has improved a little since 1930, but probably it is not greatly different. A "farmer" according to the census is any man who farms at least three acres or raises \$250 worth of produce.

Nor have better roads and more automobiles fully solved the problem of getting a doctor when a farm family needs one, partly because of the road situation just mentioned and partly because getting a doctor may be a matter of money as well as of time. Mileage charges, already cited, are one of the chief reasons why farm families often fail to call the doctor when they need one. City families

may live just as far from the doctor's home but they pay no such charge.

Then, too, some women report that certain doctors won't make country calls at night if the roads are bad or if the possibility of payment is poor. This is no general indictment of rural physicians — rather, their services and sacrifices are appreciated — but it applies in some places.

On the subject of tax supported hospitals as compared with others we asked this question: "Would you prefer a tax supported (county) hospital or one supported by contributions, tag days and other forms of charity?" Ninety-two per cent preferred the tax supported institution. They gave little explanation beyond the belief that hospitals are too important to be left to the uncertainties of contributions. They didn't mention the uncertainties to which county hospitals may be subject. Probably they did not consider all implications of this whole tax support question. While discussing taxation, however, they made it clear that taxation for health, as well as for education and other necessities, must be borne more largely by other forms of wealth than by real estate.

When it came to the question of whether "you would prefer to pay a flat rate per year and in return receive all reasonable hospital care, or go on taking your own risks on high or unexpected bills as at present," the vote was practically two to one in favor of the flat rate. Possibly a vote taken among the rank and file of farmers would have been less favorable. We know, however, from the correspondence and conversations of recent years that the health insurance idea has stirred up much interest among farmers generally, and that this interest has increased a good deal in the last year.

While many leaders among farm women would like to see insurance plans of some sort tried in their communities, most of them, we believe, are opposed to compulsory plans based on taxation.

(This despite their heavy vote for county hospitals.) That is too long a step for the American farmer, at present at least. Despite the fact that he is cooperating in many new social experiments affecting his farming, now including compulsory control of cotton and tobacco production in the South, he is still more or less of an individualist.

Differences of opinion were noted about compulsory health insurance. For example, Mrs. E. W. Moyer, living near Ypsilanti, Mich., says that "farm women here feel that since the middle class of people lack the money to pay big sickness costs and cannot be admitted to tax supported hospitals, we had better have a new kind of tax supported institution that gives free care to everybody. Taxes for such a venture, though, should not be imposed only on those who happen to own real estate."

Many other farmers feel, however, that compulsory insurance plans would tend to promote improvidence on the part of families who can meet their own sickness costs in some way. "Too many people are spending their money foolishly now, and then seeking aid from the rest of us — 'the county' — when sickness comes," says Mrs. R. W. Goodman of St. John, Kans., in expressing a typical opinion.

The resolutions on "relief" recently passed by the Grange and the Farm Bureau, two of the three big farm organizations, are of interest in connection with social experiments in general. Said the Farm Bureau (agreeing with the Grange): "Those who work should eat; those who cannot work should eat; those who will not work should not eat." Farmers sense a trend toward more and more people relying on the government for various kinds of care and they don't like it.

Farmers are willing to go on paying taxes for hospitalization of the genuinely needy, as they have been doing, but they fear that under a compulsory insurance plan they would also be paying for many who are thriftless and have quit trying.

Fighting Small Fires

The hospital should be prepared to combat small fires which usually start in cupboards, stairways, waste baskets and similar places. This requires a sufficient quantity of small, efficient fire fighting equipment strategically distributed. The equipment should be of a type that can be handled easily by the personnel, the committee on hospital planning and equipment of the American Hospital Association states.

In addition, all hospital buildings should be adequately protected by hydrants, water mains and water pressure for the use of the municipal fire department.

Fire hose in buildings should be on a swinging rack or reel approximately 5 feet above the floor, with one end always connected with a standpipe and the other equipped

with a nozzle. Unlined hose with 2½-inch connections is standard.

Certain sections of the hospital should be equipped with sprinklers, especially places that are not under supervision the full twenty-four hours of each day, such as stores, the laundry, the paint shop and the carpenter shop. Special attention should be given laundry chutes and garbage chutes. X-ray film should be stored in a fireproof vault in the upper stories of the building, preferably in the attic or on the roof. This vault should be vented so as to permit the escape of fumes. A sprinkler system is essential for this vault.

Sprinkler systems in patients' rooms that are served by fire escapes are more of a danger than a protection, because of the possibility of the system letting loose while the rooms are occupied.

Small Hospitals Must Meet Special Problems

By G. HARVEY AGNEW, M.D.

Secretary, Department of Hospital Service,
Canadian Medical Association

WE CAN be very proud of our small hospital network on this continent. Except for certain isolated communities most of our rural people have some hospital facilities within a reasonable distance. These little hospitals are doing marvelous work and have reduced immeasurably the health hazards and hardships of the rural population, not to mention the relief afforded to the medical profession. What the little hospitals in the Arctic regions far north of civilization, such as those at Aklavik, Dawson, Pangnirtung and Fort Simpson, mean to the people there, can be but surmised by others. In these northern spaces aerial transport has proved a godsend.

Several factors affecting the development of small hospitals in Canada should be of interest.

1. With regard to governmental support, the various provinces make a definite statutory grant (annual or per patient day) to all general hospitals approved by them whether these are under municipal or voluntary control. This is a great help to struggling hospitals. Also the municipalities pay all approved hospitals a statutory rate (up to \$2.50 per patient day) for nonpaying patients.

2. The great majority of Canadian small hospitals are public rather than proprietary. Few doctors operate their own hospitals or they do so only until the community or a voluntary association can take them over, for profits are almost impossible under the generous policy of the "open door." This arrangement seems desirable for (1) hospitals receiving government grants are much more closely supervised than are those classified as private; (2) the needy are more readily hospitalized; (3) all local doctors and their patients have the benefit of hospital facilities.

3. The union hospital plan is one that has been developed to meet a rural problem. On the prairie where distances are great and where, as in the older East, there are no departed wealthy families

Approximately 51 per cent of the general hospitals in the United States have less than forty beds. In Canada hospitals of fifty beds or less comprise 77 per cent of the total, excluding specialized and governmental institutions. Because of this large number of small hospitals, Doctor Agnew's discussion of problems peculiar to them, although based on Canadian experience, should win widespread attention

to leave "the mansion on the hill" for a hospital, a cooperative plan for launching a hospital has been evolved whereby several adjacent rural municipalities combine to finance a small hospital. This unique and successful plan is more fully described in the article on page 85 by Dr. F. C. Middleton, formerly deputy minister of health for Saskatchewan.

4. For fifteen years Red Cross hospitals and outposts have served selected pioneer districts. It is the policy of the Red Cross to fill the emergency need of the community and then, as soon as feasible, to let the people assume the responsibility. This most commendable work is described elsewhere in this issue by Dr. F. W. Routley, director, Ontario division, Canadian Red Cross Society.

Many smaller hospitals have become linked up with public health and social service in diverse ways. Some definitely cooperate for diagnostic and other work with the local health unit as, for example, at Red Deer, Alta. Some house the local health unit director, as at Gaspé, Que., or have the public health nurse use the hospital as a base. Many use the diagnostic facilities offered by the provincial governments for tissue and serologic work, thus solving the problem of obtaining superior laboratory aid in the small hospital. In Alberta the governmental traveling clinic featuring diagnostic work and tonsillectomies has used the small rural hospitals whenever possible. Tuberculosis and other special clinics are usually held in the local hospitals and in one province, Saskatchewan, hospitals receiving government assistance must be pre-

pared if necessary to accept tuberculous patients up to 10 per cent of their capacities. In Nova Scotia several small hospitals have built tuberculosis annexes with governmental assistance in an interesting experiment to supplement sanatorium care.

In some instances local units of the hospital auxiliary associations form oases of health interest in the neighboring communities and in one instance, at Antigonish, N. S., cooperate with the health educational activities of the near-by university extension department. Some hospitals, for example at Charlottetown, Prince Edward Island, furnish obstetric materials, without cost if necessary, for home confinements. Few as yet have established general out-patient departments although many are considering the feasibility of such. The deciding factor is usually whether the doctors would prefer to see nonpaying patients at their offices, as at present, or at the hospital.

Two Common Staff Difficulties

In a small community the public is more intimately acquainted with the hospital than in a large city. Everybody knows of its difficulties, especially of its unfortunate mishaps, and support may be influenced unduly by personal and social relationships. Rural people often require extensive education to make them "hospital minded." Many a fine little hospital donated to a community has been quite unappreciated by the recipients. At the same time there does seem to be much better team spirit and public support than in larger centers and for this reason the local hospital under proper management can become an integral part of community life. The management of a small hospital often requires qualities that are not essential in the management of a large urban hospital.

The small hospital's relation with the medical profession is very intimate, particularly because of the usually open staff arrangements. Two common staff difficulties evoke frequent comment, first, the reluctance of most doctors to write adequate histories and, second, the problem of deciding who shall or shall not do nonemergency major surgery and other specialized work. This latter difficulty has been much increased by the establishment of so many well equipped but loosely organized small hospitals. In one province the hospital association has asked the medical association to assist in finding the solution. The certification of specialists, as in Alberta, is a progressive step but is still insufficient to meet the problem. Combined medical and governmental supervision and better staff organization seem essential, although ideal results may not be possible until a system is devised whereby it is not so essential for a physician's income and community standing that he refrain

from turning the patient over to a colleague.

A study of small hospital distribution reveals large areas inadequately covered, while in other more closely settled districts almost every little town has a tiny hospital, perhaps two. This is largely due to the lack of coordinated planning of distribution and to the determining factors of local initiative and local pride. Frequently religious viewpoints have resulted in this duplication. Within a radius of a few dozen miles one may find a number of small hospitals all doing conscientious work, but not one with an expert radiologist, a pathologist or a physiotherapy or electrocardiographic department. In these days of good highways and motor cars such a situation is needless. Moreover, in the same area we may look in vain for a home for the incurable, for the chronic, for the convalescent or for patients with communicable diseases. Some provincial governments are now studying this matter seriously and approval has been denied for several unnecessary hospital proposals.

The question of finance has naturally been a much more serious matter during the last few years but thanks to governmental assistance and reasonable municipal support for nonpaying cases, few hospitals have had to close. At the same time insolvent municipalities, particularly in drought areas, and parsimonious officials elsewhere have reduced earned receipts from these sources. Many smaller hospitals have found it advisable occasionally to barter their services for produce and labor. Some have developed flat rate plans and revised private charges to increase patronage. Other hospitals have found group hospitalization plans successful.

Where prices are at all comparable business should be placed locally, but all too often, because of public opinion, hospitals must purchase locally at higher rates. The question of local preference affects personnel likewise. Home talent should be given preference if possible, but it is blind folly to turn down highly trained and experienced applicants because they come from elsewhere. Undue inbreeding on the nursing staff particularly has definite disadvantages.

Leadership Is the Biggest Problem

The problem of leadership and vision is the biggest problem facing small hospitals today. In rural or pioneer areas the hospital was often born out of dire emergency, public demand being crystallized by some unnecessary maternal or surgical death. But the completion of a building does not mean the completion of a task, for nowhere is there such need for hospital and health leadership as in the small community. Few communities indeed can boast of properly trained public health nurses, of

adequate social service organizations or of full-time health officers. All too often the hospital and the local doctors are the only parties able to give health leadership. Is it always given? And why not? Lack of funds, true, may be the factor but the success of enthusiastic voluntary workers under apparently impossible conditions would suggest another factor.

The chief reason would seem to be lack of vision — failure on the part of many in positions of leadership to realize just what their hospital could do and to what extent it could be developed to meet community health needs. This must not be construed as a reflection on that great group of hospital trustees, superintendents, Sisters and doctors who have given ample and glorious proof of their devoted service, but it should indicate the great necessity in isolated hospitals of a more thorough analysis of local health needs and concentration on those whose solution might best be undertaken by the hospital.

This situation has resulted in large part because of lack of contact with the experience and inspirational leadership of others. Many small hospital workers have few if any outside contacts. All too

many never see a hospital journal, yet one adopted idea alone should more than pay for a subscription. Moreover, there is but slight excuse for any hospital not being represented at its state or provincial convention. Every hospital should be represented in force for it is an unobservant delegate indeed who cannot glean enough suggestions to more than compensate for expenses. When motor travel is possible the chairman of the board might well be accompanied by half a dozen trustees, the superintendent and the chairman of the staff. The British Columbia association has minimized the effect of distance by pooling the delegates' traveling expenses.

An illustration of lack of contact is afforded by the large chain of rural municipal hospitals in Alberta. Organized apart from the excellent provincial hospital association, their convention is held with that of the rural municipalities. As county or other officials act as delegates to both bodies, the superintendents seldom participate and the discussions deal with legislation and finance rather than service. Fortunately, in nearly all provinces the small hospitals are well represented and their delegates take an active part in association work.

How to Clean Walls

An excellent and instructive article dealing with the subject of washing walls appears in the *American Painter & Decorator*. This article, written by George B. Perry, editor of that publication, and addressed to painters and decorators, contains a wealth of valuable information for the hospital superintendent in letting painting contracts or in planning and supervising the work of his own staff. Pertinent excerpts are, with Mr. Perry's permission, reprinted in the paragraphs which follow:

"A good many streaks are caused when washing a wall by water and solutions running down the dry wall below the place where one is working.

"This type of streak is easily prevented by wetting a section of the wall, starting at the bottom and working up, before starting the washing operation. Then when one starts to wash at the top of the wall the solution will run down a wet wall and have almost no streaking effect.

"When a wall is to be washed the temperature of the room should be reasonably low — low enough so that the water will not dry on the wall. This is another cause of streaks. Once the dirt is moistened the wall must be kept wet until the dirt is removed. If it dries prior to that streaks will result which will be difficult to remove.

"The washing of a wall should be done with good sponges — two, at least are required — one for doing the cleaning on dirty work and one for the rinsing.

"A good painter doesn't rub hard for he realizes that such tactics will push the dirt into the finish, particularly into a flat paint finish. Instead he uses his solution to soften and loosen the dirt so that it can be rinsed off.

"He applies the water or solution with a circular motion of the sponge and hand. When working with the cleaning

solution he starts at the top of the wall and, using the circular motion, works across a given section first to the right, then to the left, working on down to the base.

"Then he returns to the top where the solution has been at work softening the dirt and works across and down again. When the dirt has been removed he takes clean cold water and a clean sponge and goes over the wall a time or two to be sure that it is perfectly clean and that no traces of the alkali solution remain.

"The rinsing should be done before starting to wash a new section because if the alkali solution is allowed to dry on the surface some of it may penetrate the old paint and make it difficult to remove, and if any trace of alkali remains it is likely to soften and cut through the new paint, thus ruining the new finish.

"The procedure for washing walls that are not to be painted is similar — the only difference being that a much milder solution should be used to soften the dirt. If the wall is not to be repainted it should be dried with a chamois after rinsing in order to prevent streaking."

Washing Woolens and Flannels

Woolens and flannels should be washed with plain soap chips or chips containing a good grade of oil, according to an article in the thirteenth edition of *The HOSPITAL YEAR-BOOK*. The actual washing process is given as follows: a seven-inch break for five minutes at 90°F., a ten-inch suds for ten minutes at 90°F., and three fourteen-inch rinses for five minutes at 90°F. The article lists seven conditions that may cause undue lint in the washwheel. The washroom formulas and the washing processes for various other types of laundry are given in detail in the article.



These two pictures show the improvements made in the appearance of the entrance lobby.

ECONOMIZE — MODERNIZE. These two words are without much doubt the most important in the hospital lexicon today. They sound contradictory, but, in effect, both of them actually can have the very same meaning.

Many hospital trustees and administrators now gaze at their old buildings and sadly recall the good old days when a set of plans was all that was necessary to start money rolling in for a new building. Often merely the idea would have sufficed. All agree, however, that although those days may not be gone forever, their return cannot be expected for perhaps another generation. Therefore it is real economy to improve and to protect what we now have, and to operate it efficiently.

Lenox Hill Hospital occupies the block in New York City bounded by Park and Lexington Avenues, Seventy-Sixth and Seventy-Seventh Streets. Six years ago a \$6,000,000 building project was inaugurated; it was less than half completed three years later. The main hospital services were then transferred from the old building on Seventy-Seventh Street to the new building on Seventy-Sixth Street. The hospital's bed capacity was only slightly increased, to 325, inasmuch as the old building was abandoned in line with plans to tear it down and erect on that site the remaining half of the new hospital building.

In 1931, when we moved into this new building,

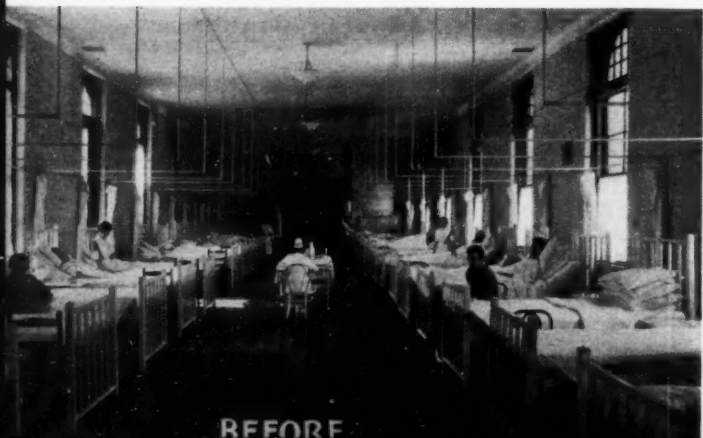
Rehabilitation Instead

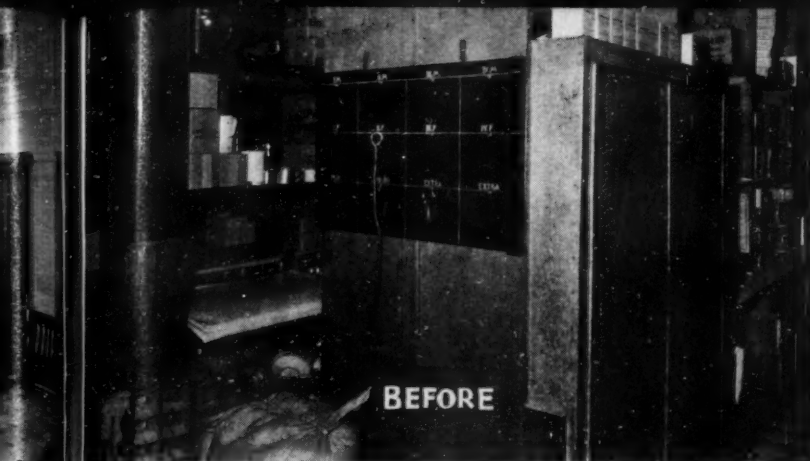
we were still far from our goal in fund collection, even for the part then completed. The demand for free care had grown and has continued to grow; but we could do no more than remain as we then were — a 325-bed hospital. Whatever seemed worth while was taken from the old building and the doors which had been open every minute since 1867 were finally locked.

This old building is over 300 feet long on Seventy-Seventh Street, and connects on two floors with our Children's Hospital at the Lexington Avenue corner; on one floor and the basement with the Dispensary Building on Park Avenue, and in the center basement a tunnel connects it with a wing of the new building on Seventy-Sixth Street. Although it is one structure, the eastern end was erected in 1884. It has four stories, basement and sub-basement; brick construction with wood floors, beams and trim, except in center section. Two of the four stairways were wood, with iron stringers. Although nonfireproof, all partitions are of heavy brick construction. Ceilings are 16 to 18 feet in height. There are many large windows and a number of fire escapes.

Construction of the old building was started in

Formerly a men's ward, this space was successfully remodeled to care for maternity cases.





A large storeroom in the basement was remodeled to provide additional laundry space.

d of Replacement

By JOHN H. HAYES

Superintendent, Lenox Hill Hospital, New York City

1865 at the end of the Civil War. Rejuvenation of that building was started in 1933 in the midst of an economic war almost as devastating.

Demand for additional beds, prompted largely in the beginning by requests for beds for chest cases, led us to open part of one floor. From this there developed the desire to use more of the building, until today every corner is occupied and our bed capacity has been increased to 600, approximately what it would have been had we completed our entire building program.

Today the building is practically fireproof and pronounced so by fire protection engineers. From many viewpoints it is more desirable than our later construction. Yet, aside from a two-story bridge connecting to our new building, all improvements were made by our own staff of plumbers, carpenters, painters, electricians and masons, at a cost only of material and the wages of four extra men employed in addition to the usual staff.

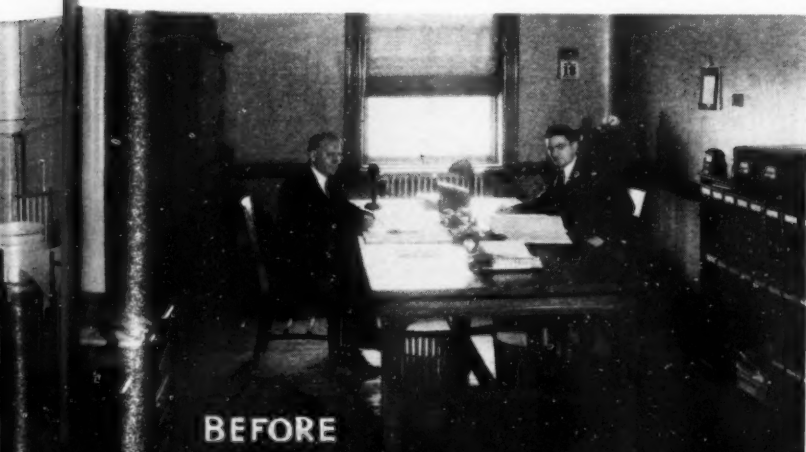
Although the accompanying pictures give an

idea of the scope of the changes made, the following may prove of interest.

The two nonfireproof stairways were supplied with a one-piece combination iron riser and tread, the tread being then filled with metal lath and cement, and painted. It was found that plaster in basement and sub-basement ceilings was held with reed grass where wood lath was not used. This was removed and replaced with wire lath and plaster or metal ceilings. Wood floors of two and three thicknesses, with worn wood bases, were replaced by placing whalebone lath in arches and filling with cinder concrete, topped by cement floors and bases. These were then covered with a heavy composition flooring. All unnecessary doors and other openings were closed with hollow tile and plaster. In many places in the basement, wood doors and frames were replaced with iron doors and frames which were surplus or replacements from the new building or found in storage. Sprinkler heads were piped in many places in the basement. A large tiled room formerly used as a kitchen was renovated and diverted to use as a laundry addition for presses. This additional laundry space, as well as a large linen repair room, was made necessary by the increase in bed capacity.

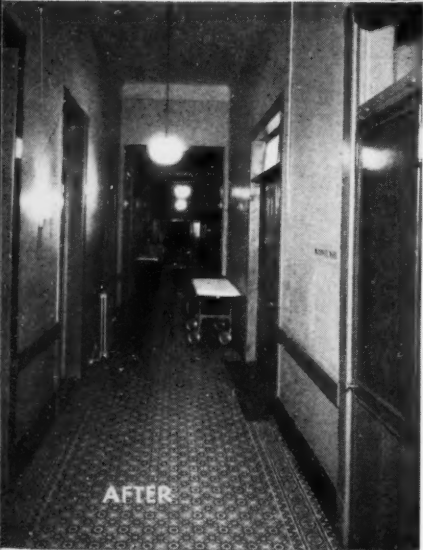
Throughout the building the wood trim and windows were of oak, varnished so often that hand graining only was in evidence. Marks of indentation from stretchers and wagons made necessary excellent cabinet work in restoring to original form. All woodwork was then painted. The wood

This room on the second floor, formerly an accountants' office, is now a semiprivate room.





The corridor leading to the maternity ward was an unsightly place before rehabilitation. New lighting fixtures, the application of paint and a number of other changes, however, have greatly altered the appearance of this section.



The basement corridors were completely remodeled. Wood floors and bases were replaced by placing whalebone lath in arches and filling with cinder concrete, topped by cement floors and bases. These were covered with a heavy flooring.



floors of wards remain, scraped, stained and varnished. Some patching was necessary. These floors are not considered a fire hazard due to the height of the ceilings and all-masonry partitions. A centrifugal paint spraying machine made painting of ceilings and large wall spaces economical. On the first two floors the west wards, 100 feet long, were divided by hollow tile partition from the foundation up, thus strengthening these long expanses and providing further fire protection. This also made possible services for both sexes in our new neuropsychiatric and fracture services.

Old sinks, toilets and other plumbing fixtures were put in good shape, or new parts were added or new fixtures purchased at reasonable prices. Old sterilizers were repaired; others were added by the purchase of rebuilt equipment. A few new ones were bought. Many beds, some thirty-five years old, were placed in acid baths, then reenameled in two-color effects. New casters and gatches were, of course, necessary. New electric wiring was drawn through the old conduits and cheap but attractive lighting fixtures replaced the old-fashioned ones. Electric clocks were installed at a cost of about \$8 each.

It was astonishing how convenient a new door opening or the closing of a space made the entire arrangement. Metal treads with brass noses covered worn marble steps. One of these steps wore through the last week of our tenancy of the old building. Tables, chairs and metal hospital equipment, long in basement storerooms, readily responded to cleaning and repair, and plating restored many fixtures to newness.

New Heating System Installed

The entire hot air heating system, expensive to operate and inefficient because of dust clogging of flues, was discontinued and all openings sealed vertically and horizontally by the masons, thus eliminating another fire hazard. This system was easily replaced by headers and pipes hung in the walls, and now, for the first time in many years, the entire building can be kept as warm as is required, as was proved in last year's record winter. Heat is better controlled because of these coils, whereas formerly either those beds nearest the registers were uncomfortably hot or the others were cold. This also made possible the removal of large brick tunnels and piers in the basement where the air was heated, provided thousands of needed bricks and made a large additional space there for a shop and a recreation room for the male help.

Ward pantries were refurnished with ice boxes and metal closets which had been taken from the private wing when the new building was added to it, thus making possible removal of old inefficient

insanitary equipment without expense. Dish warming closets from discontinued kitchens were cleaned and painted and made excellent blanket warmers.

Throughout the building every possible piece of wood was replaced with metal or mason work. Metal corner irons, over one hundred, were installed where required.

Each ward and room is now tastefully decorated, usually in two-color effects. Doors and trim are in two shades of gray.

Many New Facilities Are Provided

This work has taken almost two years because it was somewhat of a spare time job, men being used from every department as occasion warranted. It was done at a time when materials were cheapest. One floor at a time was the usual procedure and patients were admitted or moved as each unit was completed. We now have the following facilities where a short time ago there was merely an abandoned hospital building:

Basement: sorting and linen rooms; press room; engineer's office; cleaning materials distribution room; ping-pong room for interns; recreation room for help; glass storage room, and shop.

First floor: neuropsychiatric wards (30 beds); isolation and quiet rooms; lobby with surrounding rooms for mental hygiene and ante partum clinics, and women's chest ward (23 beds).

Second floor: fracture wards (28 beds); splint room; three semiprivate rooms for seven male patients, and male chest ward (21 beds). Both chest wards have porches for their entire length.

Third floor: maternity ward (31 beds); isolation rooms; three delivery rooms; two nurseries with sixty bassinets. This floor also extends on to the fourth floor of the children's building, where we have renovated and provided ten rooms of two beds each for semiprivate maternity cases.

Fourth floor: male help quarters.

In addition to the above the former x-ray quarters adjoining on the Park Avenue side were converted into rooms for pneumothorax, basal metabolism and electrocardiograph work, making them available to old building, new building and dispensary.

The exterior of the old building was steam cleaned for the first time in seventy years. This cost \$250 and was paid for by one of our doctors. Even though this is a large hospital in a large city, we have not hesitated to ask our friends for equipment and materials in the same manner as would a small community hospital. Trustees and friends were asked for used partitions, desks, chairs, tables, all of which we were able to restore, often to a condition or appearance excelling the original.

These two pictures show the changes made in another one of the basement corridors. Wood doors and frames were replaced with iron doors and frames which were surplus equipment or replacements from the new building or were in storage.



BEFORE



AFTER

The two nonfire-proof stairways in the building were supplied with a one-piece combination iron riser and tread, the tread being filled with metal lath and cement and painted. These two pictures of the west stairway show the improvement.



BEFORE



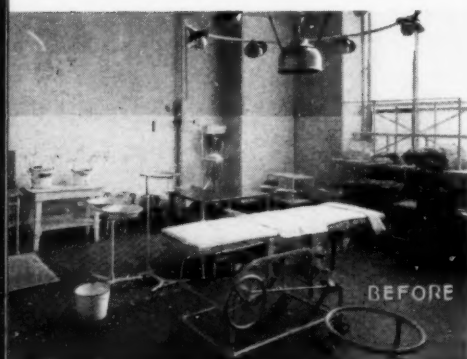
AFTER

It is astonishing how much can be secured in that manner. Easy chairs, rugs, draperies and pictures for reception rooms and various other items, now resting in storerooms, can be made to serve for many years.

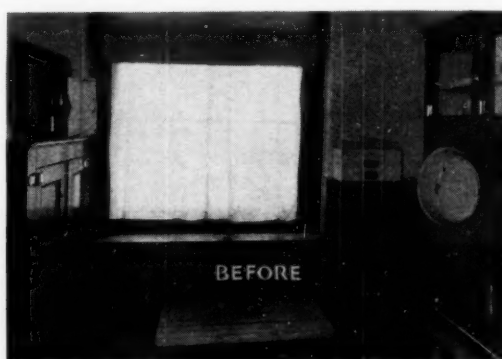
It is astonishing also what a change a few bags of cement and sand or \$10 worth of tile will create. We have modernized our toilets and baths and have provided showers merely by the purchase of a sheet of lead, some tiles and piping. In many instances we have made changes in floor material the cost of which has already been paid for, or soon

gineer and every one of his men worked with a pride of workmanship I have never witnessed elsewhere. Each one seemed intent on showing what a fine job he could perform, and many voluntarily worked overtime on what became a labor of love. Naturally, a great deal of sentiment attaches to this. The building was an old friend needing help.

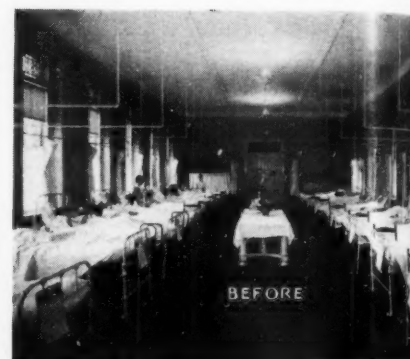
Doctors and nurses strolled from their daily rounds to watch progress, and all contributed ideas, many of which were carried out. One of the attending physicians gazed wide-eyed at the transformation and then asked: "When are you going to



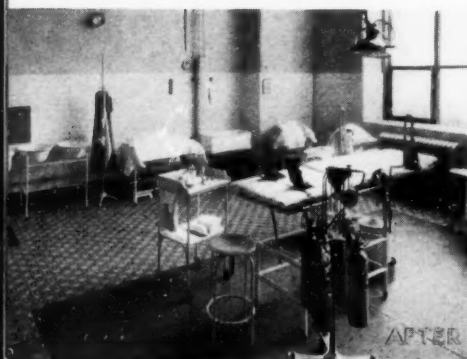
The former main operating room, above, is now the modern delivery room shown below.



The lower picture shows some improvements made in the old ward pantry pictured above.



The nursery below was formerly part of the women's ward shown in the picture above.



will be, by the saving in cost of cleaning the original surfaces.

Throughout all of this we had the utmost help and enthusiasm of our 600 workers. In addition, our ladies' auxiliary provided draperies, curtains, linens, bed curtains, all of the best. They also gave to us large sums which they collected in their enthusiasm for the restoration of this old building. We even used the chemist to tell us how to restore old tile and brick. Bichloride stains in the old operating rooms (now delivery rooms) which had accumulated over many decades, were promptly removed by his concoctions. Many new casters were purchased because they were needed on old equipment. These are an economy. The chief en-

tear down the NEW building?" which is perhaps the best commentary on the general opinion of those who knew the structure "before and after." It is therefore natural that all of us are proud, not only of what has been done but of what it has cost. The cost of extra labor and equipment purchased amounted to approximately \$30,000, maximum. It is impossible to figure the cost accurately, inasmuch as items such as paint and fittings were included in monthly maintenance bills—where they belong—and not definitely charged to old building repair. Most of this was spent for beds, mattresses, surgical equipment and the many items necessary for each ward bed. It also included \$4,500 for the two-story bridge, the only work not performed by our



This modernly equipped linen repair room was formerly a dining room for the help.

own men. Toward this \$30,000 the ladies contributed over \$6,000.

Briefly, we now have a beautiful new building where we formerly had an empty shell ready for the wreckers. We now have a complete hospital service, except for contagious diseases. We have twice as many beds and, without increasing overhead, we are able to perform more ward service without greater loss for the reason that these additional beds lessen the actual per diem cost for all beds. We have provided work for many unem-

ployed nurses and others, and we have a greater pride in our accomplishments.

Managers of hospitals with old buildings who feel that there is a crying need for replacement and no likelihood of collecting the necessary funds could well study plans for rehabilitation instead. Like efficient housewives, we must do our cleaning a room at a time, and although we always cherish thoughts of larger and better equipped houses, we should now do our best with what we have at hand so as to make them more nearly what we hope for.

What Is "Public" Service?

There has grown up in the United States and elsewhere great confusion of thought due in no small part to the inaccurate use of the words "public" and "official," in the opinion of Nicholas Murray Butler, president of Columbia University, as stated in his annual report for 1934.

President Butler says: "In the United States by far the greater part of that which is public is not official at all, and the highest and finest type of public service is not, and never has been, official. The administration of the post office is both official and public; but philanthropy, the advancement of science and letters and the fine arts as well as the enhancement of the religious life of men, while always public are very rarely official. . . .

"It is established policy in the United States, and has been for an indefinite past, that nonprofit making public service formally undertaken in the sphere of liberty through the voluntary cooperation of individuals or groups, shall not be called upon to meet any share of the cost of government. Therefore, property held for these public purposes is pretty uniformly exempt from taxation, as are gifts made for these purposes. . . .

"The convincing reason for this policy should be quite obvious. It is that this public service in the sphere of liberty is not only on a par with any public service which can be rendered in the sphere of government but usually is quite superior to it. This formal recognition by the people, through their government, of the public service character of undertakings in their sphere of liberty, whether religious, educational or philanthropic, is so well established that it

cannot be departed from or abandoned without completely wrecking all that is best in American public life. When a people desires to undertake any course of action collectively, it may carry out its purpose either by appeal to government or by voluntary and self-directed action. The latter is the course always to be followed until its impracticability in any given case shall have been clearly demonstrated."

Stopping Roof and Wall Leaks

Water leaks are the most common defect in the walls and roof of a building and often result in serious damage. Leaks through the roof are caused by broken or loose tile, loose or missing shingles, faulty flashing and openings in paper and asphalt covering, the committee on hospital planning and equipment of the American Hospital Association points out.

Water may follow roof construction for several feet from the entrance point before passing down to the walls and ceilings. This makes it difficult to locate leaks, but repairs cannot be accomplished until the entrance point of the water is found.

Moisture penetrates walls through cracks, defective tuck pointing, inferior quality bricks, caulking around windows and doors and opening of seams. Caulking and tuck pointing often are all that is needed, but sometimes the damage is severe enough to require rebuilding of the wall. If the moisture penetration is slight, treatment of the surface with clear or colored waterproofing may help to remedy the situation.

The Small Hospital's Home and

PLANNING a small hospital has its difficulties. Its needs are as varied as those of a great medical center but it lacks patients to justify such quantities of equipment, the trained personnel to use it and the funds to build, equip and operate it.

The small hospital plan cannot be based on that of the large ones in which all of the doctors and most of the nurses received their training, and from which the laymen directors find their inspiration. To be rational, efficient and economical, its planning must be based on a penetrating analysis of its own peculiar needs.

The few on the medical staffs of the small hospitals replace the hosts of specialists on the staffs of large ones. The members of the nursing staff display surprising versatility, now in the operating room — then in the wards — followed, perhaps, by a brief turn on the books. They do a splendid job. And their trying tasks should be eased as much as possible by a building plan that recognizes the peculiar requirements imposed by the organization.

Minimum Is 80 Square Feet per Patient

There must be no relaxation of the well recognized minimum standard of 80 square feet for each patient in a two-bed or larger room. Medically, this is perhaps an empirical standard but practically it has been found that 80 square feet per patient is comfortable for a four-bed room and just a wee bit cramped for a two-bed room — doors, furniture, carts and personnel being what they are. Sixty-two square feet per bed, even though approved with all the dignity of a Duke Foundation, only deludes and makes a paper record of low costs per bed. But that sort of thing is a common fault in small hospital planning. Because the number of beds is small, it is assumed that the rooms may be small and that by some miracle the demonstrated practical requirements of daily use may be ignored.

The small hospital must be prepared to accept patients of all clinical, economic and racial classifications. It can't "pass the buck," for seldom is there any other place to send them. It must be prepared for wide variations in occupancy and for equally spectacular variations in clinical and economic classifications. One day there are six maternity cases — then there is none. With the best

By CARL A. ERIKSON

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Chicago

room already occupied, both the minister's wife and the banker's child come in. So it goes endlessly. Flexibility then is a paramount objective — two-bed rooms become private, private rooms become two-bed ones and clinical and sex classifications of the wards change from day to day. And to further confound the confusion, in many centers in which small hospitals are located a ward bed is just as helpful as the water of the Pacific is to the thirsty man in the middle of it.

Seldom in a hospital of forty beds is a ward with more than four beds justified; in the fifteen or twenty-bed hospital only exceptional conditions justify wards of four beds. The hospital of fifty-two beds with an eight-bed ward and three six-bed wards probably cannot satisfactorily operate these twenty-six beds at an average capacity any greater than twenty beds divided among four four-bed wards and two two-bed wards. The saving in initial cost is obvious.

The number of private rooms should not be determined solely by their possible earning power. There should be enough of them so that when it is desirable to move a ward patient into one it is available. This promotes better medical technique, comfort of patients and maximum use of available beds. Private rooms 10 by 16 feet should be seriously considered for they are large enough for two beds in an emergency and yet make excellent single rooms and cost little more than the smaller rooms.

As there can be little practicable reduction in the floor area of patients' rooms, the building volume will be largely determined by the satellite rooms. At the outset it should be recognized that these essential adjuncts — corridors, kitchen, operating rooms, boiler rooms, toilets — will occupy a considerable part of the volume. In the larger hospitals patients' rooms are but 18 to 25 per cent of the total gross building area. To do as well in the small ones requires a searching analysis of every space eating element.

In the personal service to the patient the problem is most acute. Remembering the probable rapid changes in the clinical, sex, economic and (in the South and Southwest) racial classifications, it

How It Should Be Arranged

Planning must be based on an analysis of needs

It is obvious that every patient's room and ward must have a lavatory, either in or immediately adjacent to it. Proper nursing technique and economy of operation strongly point to the desirability of a water closet, with a spout over it for cleansing bedpans, urinals and basins, adjoining every patient's room and ward. To provide this is not as expensive as it seems to be. Analysis of one widely publicized set of plans for a model small hospital, and of a number of others shows that fewer plumbing fixtures and less floor area would have been required if every patient's room had been connected to such a service-toilet room.

The usual complement of rooms necessary to the patients' bedside care must be provided. A utility room, linen room, janitor's closet, nurses' station and bathroom are the principal ones required for bedside care. It is obvious that all of these are necessary no matter how few the patients may be. It is equally obvious that one set of these rooms should be sufficient for as many as forty to fifty beds if the patients' rooms were readily accessible; on the other hand, three sets would be necessary if these patients were divided among three floors. It is evident that if all patients could be grouped around a single set of these rooms, considerable economies in building costs would result.

One-Story Building Is Cheaper

A study of a recently published and well sponsored twenty-seven-bed hospital (a three-story building) shows three sets of utility rooms, totaling 1,600 square feet gross area. If the patients were all on one floor one-half of this, or about 900 square feet would provide much more liberal facilities. In the same hospital we find two serving pantries. If the kitchen were on the same first floor with the patient, pantries would be unnecessary and 440 square feet of gross area could be eliminated. But even in the two and three-storied hospitals this space might easily be eliminated. The multistoried hospital requires lift equipment; in this one we find an elevator and a dumb-waiter. But stairs also are necessary. In this one the area required for stairs and elevators is 1,290 square

feet—nearly 10 per cent of the total area of the buildings. In the one-story building no lift equipment is necessary, though basement stairs are.

Using this otherwise well planned twenty-seven bed, three-story hospital as a base, the reduction in floor area possible by substituting a one-story building is 2,140 square feet or 16½ per cent of the total area of the building as erected. The saving in costs is probably between 5 and 15 per cent.

Even though the one-story hospital did not cost less it still merits consideration because of its greater convenience in caring for the patients and the elimination of costly mechanical contrivances. If we add to this the difficulties and cost of efficiently nursing, say, fifteen patients on three floors—there seems to be little reason for the multi-storied hospital.

Have an Ample Site

The site should always be ample—from three to five acres—whether the hospital has one story or several. As most small hospitals are in towns of under 10,000, the land costs need never be an important element in the budget.

The planning of medical services presents a problem of nice discrimination and judgment. Most of us will admit that it is desirable to have a birth room separate from the operating room. Every one will agree that there should be a spare operating room. But the application of these ideas to the small hospital is a drain on funds that should often be used for better purposes. It is not a solution of the problem to provide a birth room, a main operating room and a minor one as was done in the twenty-seven-bed hospital to which I have referred. If we imagine it operating at 80 per cent capacity, it is found that it probably will not average more than one-half procedure per day for each room. Medical theories may justify such provisions but my common sense tells me that if the funds are limited one of these three rooms might easily be spared; even with two rooms, it would mean only about one procedure per day per room.

It is difficult to justify more than two rooms for surgery and obstetrics in the hospital of forty beds and under. But those two rooms should be large enough to permit of the best of technique—probably 16 by 20 feet and certainly never less than 14 by 18 feet. The two rooms should be close to-

gether. A doctors' locker room large enough to permit three or four surgeons to dress at once, equipped with a washbasin and hanging space but not lockers, and a combination nurses' work and sterilizing room would complete the operating department.

The x-ray department ceases to be a "department" in the very small hospital and becomes merely a room with a closet near by as a dark room. The development of the powerful portable and shockproof unit makes possible a dual use of this room if desired. The apparatus can be arranged in such a way that the room may be used for an examining room as well, or even as an operating room when desired.

Pharmacy and Laboratory May Be Combined

It must be remembered that small hospitals cannot afford a resident pathologist. The larger of them may at times have a technician who doubles in the x-ray and pharmacy. Difficult analyses are probably transmitted to the larger hospital or state laboratory. Therefore, it seems feasible to combine the pharmacy and the laboratory in one room and that one not very large.

Just how many solariums are necessary for any hospital will always be a question of judgment. But I can't pin any medals on that twenty-seven-bed hospital, whose plans I have before me, which has four solariums containing 1,030 square feet. Especially do I refrain from any encomium for this hospital when I find that its four-bed wards have but 65 square feet per bed and that there is but one storeroom with a total area of about 140 square feet.

Whether or not an out-patient department should be installed will depend entirely on local conditions. If such a department is considered necessary, the amount of work reasonably expected should determine the space allotment and not an imaginary clinical subdivision. Probably in most cases a single room with an adjacent waiting room will be more than ample. This suite can also be used by physicians who bring in a patient for examination and consultation.

One of my pet theories is that the basement is a proper place for boilers, pipes and storerooms, and that it can be made acceptable for a morgue, laundry and help's locker room, but with these its decent usefulness ends. I am not even convinced that it is proper to house Negro patients below the ground level, as they seem to do in the South, occasionally with the blessings of great charitable foundations. So it isn't surprising that I deplore the practice of putting the out-patient department in the basement. Aside from the esthetic, sanitary and psychologic objection to an out-patient depart-

ment in the basement, there is, I believe, a strong practical objection. There are not enough personnel to make such an arrangement satisfactory. Too many entrances and exits are a nuisance anywhere. In the small hospital there can be only three, the main entrance, a goods entrance and a door in the basement for the removal of bodies and ashes.

While I recognize that there are racial taboos such as those in the South, that point strongly to the need for a separate out-patients' entrance, in general I can see no serious difficulty in planning the main entrance of most hospitals so that the out-patients' waiting room will immediately adjoin it, thereby permitting the clerk or other controls in the main office to supervise the out-patients' entrance also. There is no need for large waiting rooms or a large entrance lobby except for that momentary glow of satisfaction it gives those who survey its usually banal furniture and decorations. The visiting hours are no problem in the small hospital. The ubiquitous salesman and other occasional visitors require only a chair or two. If, as has been suggested, the out-patients' waiting room adjoins the main entrance, it can be used as a waiting room when necessary.

In hospitals of twenty-five beds and under the business office should be large enough so that the superintendent may have a desk in that room. It becomes virtually a private office during a large part of the time. Perhaps in larger hospitals a second office is indicated though this is doubtful.

An ambulance entrance is a happy idea taken over from the larger hospitals through sloppy thinking. Usually there isn't any ambulance. Serious cases arrive at the hospital front door in an automobile, so we might just as well accept that fact and plan accordingly. Consequently, the entrance floor should never be more than a few steps above the drive.

Plenty of Storage Space Is Essential

In a frantic effort to obtain extra operating rooms that are never used, ambulance entrances that are always locked and gorgeous entrance halls, the storeroom and boiler rooms pay most of the bills. Usually the worst sufferer is the storeroom. Just how a thirty-one-bed hospital manages to get along with 93 square feet (8½ by 11 feet) for storeroom purposes, and how another one of thirty-one beds manages with 90 square feet would puzzle any administrator. Of course, the answer is that they don't. Other rooms are taken over after the building is completed until the needed complement is reached.

In planning the small hospital kitchen, the limitations of the personnel are a primary considera-

tion. I recall Fanny, black and buxom, who cooked and baked delicious foods for forty-five husky boys three times a day in a kitchen about 12 by 15 feet. I recall another kitchen, about 10 by 12 feet, with a tiny adjoining pantry, where the simple diet of an Indian hospital was prepared for an average occupancy of twenty-one patients and about five workers. In a group of eight hospitals, ranging from twenty-five to forty-six beds, the floor area assigned to the kitchen varies from 17.2 square feet per bed to 32 square feet per bed. Probably 20 square feet per bed is sufficient kitchen space other than that needed for the refrigerator and grocery storeroom. The nurses' and help's dining rooms should adjoin the kitchen. In the very small hospital, the help's dining room might be an alcove off the kitchen.

What About the Laundry?

Whether or not a laundry should be installed in these hospitals is a matter of mathematics coupled with some good guesses. If satisfactory commercial laundry service can be had at rates not much in excess of what it would cost the hospital to do it with relatively inefficient help, then a laundry is not justified.

In the small hospital as in the large one, emergencies will require that the nursing staff report for duty at any time. As the superintendent frequently is a nurse, she is usually the first one on the job. It is for that reason, perhaps, that superintendent's quarters are so frequently found within the hospital building, even though no other personnel quarters are found there. The superintendent should have not less than two rooms and a bathroom. If these are in the hospital, this probably costs between \$4,000 and \$6,000. Communication being what it is, consideration should be given to housing the superintendent outside the hospital. It may be better and may cost less.

The provision for space and domestic water heating in small hospitals differs not a whit from that in larger hospitals. In the larger hospital, high pressure steam boilers are justified. In the small hospital, however, the operating expenses of a thriftily operated high pressure plant are probably greater than those of a low pressure plant. For this reason, and others that I have pointed out, high pressure steam using equipment should be avoided. But steam at 20 pounds — too high for the low pressure heating boilers — is necessary for sterilization.

The customary medium to produce these steam pressures in the absence of high pressure boilers is either gas or electricity. However, in many communities gas from public utilities is not available. Bottled gas (delivered in cylinders under high

pressure) can be had everywhere and might not prove more expensive than electricity, the only alternative. Electric sterilizers are costly to install and often expensive to operate because of the demand factor and their consumption of electricity. It is unfortunate that manufacturers of sterilizers have not yet adapted the oil burner to sterilizers.

That the multistory hospital must be of fireproof construction no longer admits of any discussion. It should have two large stairways well separated so that the hospital could be easily evacuated in case of emergency. On the other hand, the one-story plan, which I recommend for all small hospitals, is quite different as a fire hazard. The first floor need not be much more than a foot or two above the surrounding finished grade. With sufficient emergency exits properly located, it is evident that evacuation becomes a relatively simple matter.

The small hospital, like the large one, must be finished to suit its purpose. There can be no let up in the search for durability and ease of cleaning. Tile wainscoting, amply justified in the busy operating rooms of the large hospital, may be just an extra straw on the building budget camel of the small hospital.

These small hospitals, located usually in smaller communities, cannot expect service on elaborate equipment from the local shops, nor can they afford skilled personnel on their own pay rolls. The simplest materials and equipment are therefore essential. Gadgets are anathema.

Watch Local Markets for Prices

In selecting all the details of the finish, one eye must be kept on the local markets, the other eye on durability, maintenance and initial expense. Because the difference in cost between a terrazzo and a wood floor is justified in larger cities, it does not follow that this is true in the small hospital where the difference in cost is apt to be much greater.

Doctors and nurses trained in larger hospitals subconsciously picture in these small ones all the wheels, levers and switchboards found in the larger ones. They recognize that there cannot be as many operating rooms or laboratories, but everything else shall be there — "only smaller." The layman, hypnotized by the pomp and circumstance of the larger hospitals, is poorly equipped by knowledge and experience to determine the differences caused by mere size, let alone those effected by personnel. Invariably planning for small hospitals that is either consciously or subconsciously based on larger hospitals results in too many rooms, most of which are too small, and in a grouping of them as fantastic as Alice's trip through the Looking Glass. We must never forget that these are cottage hospitals—never mansions or machines of science.

How a Small Hospital Made

By RAYMOND P. SLOAN
Associate Editor, The MODERN HOSPITAL

THERE may be some question as to whether a 100-bed institution may fairly be placed in the category of small hospitals. For a major part of its nineteen years, however, Caledonian Hospital in Brooklyn, N. Y., boasted of but twenty beds housed in a wooden structure. Only as far back as 1926 a new building increased its capacity and even more recently a nurses' home has brought added distinction.

Its problems have not only been those of a small hospital but a small hospital located in a big city, in which are far more imposing and elaborate institutions. This fact indeed lends even greater significance to its achievements. Others may surpass it in size and pretentious accommodations, but none can top it for standing or the high character of service rendered year after year.

Sound organization has been responsible in part for this enviable record. Three main divisions comprise the hospital set-up — the administrative department as governed by the superintendent, the medical board as controlled by its chief and the lay board as managed by the president. While each has its own functions to perform, it operates through the superintendent who coordinates every department to one end — the care of the patient.

This pattern was established the second year of the hospital's existence. A poor start had been made. It was necessary to begin all over again, so

Cut to a sound pattern some seventeen years ago, the policies which govern the conduct of the Caledonian Hospital have withstood the test of good times and bad. This Little Journey to Brooklyn, N.Y., is unique in that it establishes closer acquaintance with a small hospital doing big things in a big city, with no endowment and paying its own way

in 1918 Nora E. Young, R.N., was placed in charge. Her first action was to convince her board that the superintendent must have complete control with the right to use her own discretion as to whom she shall employ and whom she shall drop. She was abetted in this by Dr. Joseph Tenopyr, head of the medical staff. The board, comprising members of the Caledonian Society, an organization of Scotch people who sponsored the hospital originally and still maintain it, recognized the fairness of the request and has never failed to abide by it and to cooperate.

These administrative policies which have worked out so successfully at Caledonian are outlined by Doctor Tenopyr in discussing the relationship of the medical staff to the hospital. "If the policy of the hospital has been formulated by the governing board," he explains, "the execution of that policy must be left to the director or superintendent without interference from any department or from any individual. The director or superintendent should be willing to receive advice or counsel from the medical board in medical matters.



de Good in Metropolitan Life



Here is the nursery at the Caledonian Hospital, Brooklyn, N. Y. The flat rate for maternity patients includes prenatal and postnatal care and grants the privilege of examinations of the child.

"The superintendent or director should be the executive head responsible to the governing board. He should have definite personal knowledge of the working of all departments and all the boards. Thus his knowledge is greater than that of any other person and hence makes him the most responsible individual in the institution because he has all the facts and angles of any given situation and his judgment to act should not be interfered with. The responsibility of the successful administration of the hospital is his and the more power he has, the more successful will the institution be if he acts wisely. The lack of wisdom will soon be apparent and removal by the governing board will follow.

"All requests should go through the superintendent's office. His is the key position in the institution. He should coordinate all the departments to one end — the care of the patient. Obviously the staff will come in contact with the superintendent more than any other individual. In order not to waste the time of the executive and eliminate unnecessary duplication of requests, the medical staff should deal with the superintendent through the head of each service in matters of immediate moment. The medical board should take up its problems of nursing, dietetics, drug supplies and necessary equipment with the superintendent in its monthly meetings. Here should be discussed

such problems as the heads of service have noted during the course of the month."

It was agreed at the start that all matters should be discussed openly at Caledonian, that when the head of the medical board had objections to raise in the administrative procedure, he would walk into the superintendent's office and state them. It was likewise understood that the superintendent should be present at every meeting of the medical board, also the lay board so that she might be posted on everything pertaining to the hospital. It was not accomplished easily. There were times when an attending doctor would bolt by the office up to his patient and walk surlily out again. It did not happen often. Such violators of the growing "corps d'esprit" were requested to stop in at the superintendent's office. "What is wrong, Doctor?" was the customary question. "If you have any criticism, we want to know it. If it is merely your morning coffee that was not right, we will have to ask you to change your attitude. We expect you to extend us the small courtesy of a pleasant 'good morning.'"

That generally was all that was necessary. There were one or two instances where a doctor could not adjust himself to the new atmosphere. Soon he dropped out and his post was filled by another, glad to cooperate. The staff today numbers 120,

seventy-five of them regular members and the balance using the hospital by courtesy.

Because of certain well conceived policies instituted at the start and carefully adhered to by Miss Young and her staff during the ensuing years few embarrassing situations have arisen through the desire to add friends or relatives to the personnel. This simply is not done. Any such suggestion brings the firm response that there is no suitable opening.

Aside from the need of sound organization policies, there must be certain definite ideas about the part which the hospital is to play in the community. Is it to be merely a workshop for doctors, used by them as a source of income or should it provide certain educational opportunities and radiate an educational atmosphere? This latter procedure was decided upon at Caledonian many years ago and has been responsible for much of the prestige which the hospital enjoys today. Just this season a surgical seminar has been conducted at the hospital by a group of carefully selected specialists, the object of which has been to present a critical analysis of surgical problems of interest to the general practitioner and surgeon. The discussions of the subjects are supplemented by pathology, radiology and biochemical data. Two-hour periods once a week for three months comprise the course, a different subject being discussed on each occasion such as appendicitis, fractures, surgery of the gall bladder, bone tumors, surgery of the thorax, osteomyelitis, surgery of the breast. Invitations to subscribe were sent to a list of medical and surgical men in the city and the small fee of \$15 was exacted, together with credentials showing the eligibility of the applicant. The advantages of thus stressing the educational aspect of the institution cannot be overestimated.

Hospital Is Self-Supporting

So far we have encountered a small hospital that despite its location in a large city has attained distinction due to its sound policies and ideas on the true function of a modern hospital. Even more surprising is it to discover that this institution is self-supporting. There has been no financial endowment but it possesses a staunch group of men and women who work industriously to provide for special requirements such as a new operating table lately installed, an x-ray machine or other similar equipment. All funds raised by the women's auxiliary or other affiliated groups are turned over to the hospital for some specific need and are not used for running expenses.

"Watch the little things, and the big ones will take care of themselves," typifies Miss Young's procedure. To this she adds emphatically, "Watch

your pay roll and the number of persons on it."

The superintendent of a small hospital is fortunate in this respect. She can maintain personal supervision over details which would obviously be impossible in a larger institution. It has not all been clear sailing, however. Far from it. Miss Young confesses to many a headache during recent years. As in every other institution there have been salary cuts.

On one occasion Miss Young assembled the entire staff and put matters up to them squarely. Not that they had to be told. They know that the hospital has but one main source of revenue — patients — and that when private corridors are closed and bed occupancy in general shrinks, the inevitable must happen. They accepted it in the spirit with which it was presented to them. They not only accepted their cuts but went back and assumed additional responsibilities.

Flat Rate for Maternity Patients

At the time of writing, there are fifty patients in the hospital and fifty-four employees. Ward rates are \$4 daily. The charge per day in a three-bed room is \$5.50, in a two-bed room \$6, and private accommodations average from \$7 to \$12. There is a flat rate for maternity care amounting to \$70 for ten days for those not paying the doctor. This includes prenatal and postnatal care and grants the privilege of periodic examinations of the child. The charge for those paying their doctors is \$60 for the same service.

All floor supervisors are graduate nurses who receive \$55 or \$65 a month with maintenance. The hospital operates its own training school founded by Miss Young in 1919 which offers a two-year course. Each student, there are now seventeen, is allowed \$15 a month to cover uniforms, aprons, books and shoes. This plan was made effective after a period of supplying the girls with their equipment. Losses and waste due to carelessness were found to be so great that the \$15 monthly allowance was instituted.

Every applicant for a position in the hospital is interviewed personally by Miss Young, who carefully explains the requirements of his or her particular duties. They are acquainted with the fact that they will have to double up to a certain extent and help in other ways. It is impossible to make ends meet having fifty patients if the members of the staff are specialists unwilling to step out of their assigned rôles.

The fact that everyone is ready to lend a willing hand contributes to an atmosphere which is manifest to the visitor immediately upon entering. The telephone operator seated to the right of the main door serves as information clerk. In addition, she

stamps envelopes or does addressing. On other occasions she will voluntarily ask for gauze which she may fold. The bookkeeper acts as Miss Young's secretary and also helps with admissions. The anesthetist relieves the supervisors when not otherwise engaged or helps the assistant superintendent. The x-ray technician, who is a nurse, also relieves the supervisors or assists in the office. The assistant superintendent has charge of the emergency room, assists in the office and during clinic hours acts as registrar.

Downstairs there is one dietitian but the housekeeper has also had dietetic training and can assist when necessary. Student nurses receive two months of dietetic training through practical experience in the kitchen. One chef is employed and two kitchen men. There is also a full-time night cook who receives \$45 a month and maintenance. Four days of the week she works from four until midnight and the balance of the week from nine to midnight. On those days when she starts at four, she does hand laundering from four until nine.

Labor is reduced to a minimum in the engineering department through the installation of low pressure and high pressure boilers and oil burners. One engineer is employed and a night watchman. As a precautionary measure gas sterilizers are in the operating room for use at night.

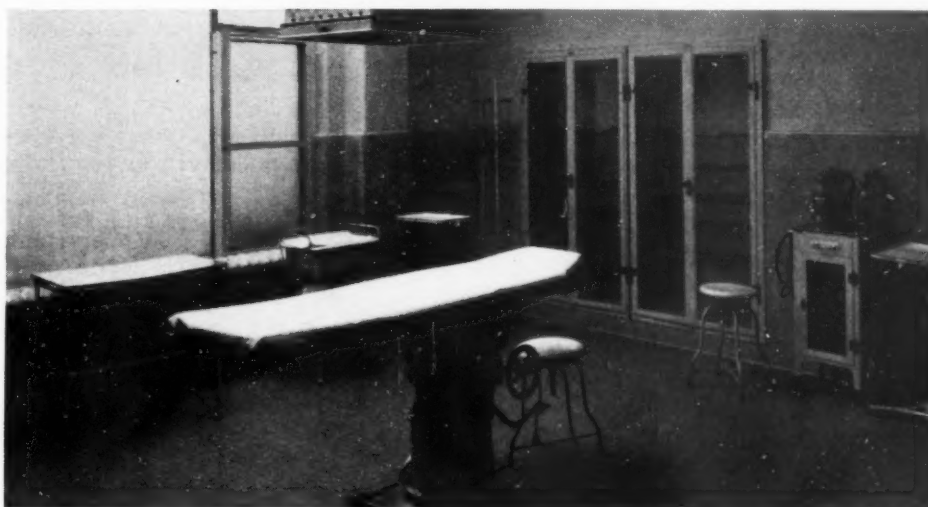
At all times there is war upon waste. The hospital has to buy its own water, and also has to use a water softener. Consequently, a constant check is kept on dripping faucets and on lights that are used unnecessarily. A close check is likewise maintained on food served. The floor supervisor personally takes charge of the food as it is removed from the wagons on to the trays, making sure that everything is as it should be. If she finds that food is not being consumed, she reports to the dietitian. The dietitian, in turn, makes frequent contact with

the patients, finding out their preferences and talking over with them their special diets. In addition, a careful watch on the garbage cans is maintained by the housekeeper.

Reports are simplified, thus saving paper and reducing the amount of help necessary in entering and filing them. On one sheet the hospital lists the statistical data of each patient, leaving space at the bottom for a report describing briefly the provisional diagnosis made within twenty-four hours



*Above is shown the well lighted laboratory where there is ample working space.
Below is one of the operating rooms.*



of admission, the working diagnosis and the final diagnosis, also a line or two for a few words showing the condition of the patient on discharge, and comment on the operations. On the back of the same sheet is a form for consent for operation, a form for discharge without authority, a form providing a record of bruises and injury on admission and an autopsy form.

No effort or expense is spared on the other hand in checking up on the service which every department of the hospital renders. A special form is



A nurses' home is a recent addition to the facilities. The hospital operates its own training school which was founded in the year 1919.

provided which each patient is requested to fill out on leaving. It is so arranged that it may be sealed before it is turned in. The patient is requested to state in what manner he was received in the office, how he was received on the floor, how his requests were attended to, whether his meals were satisfactory, whether he slept well at night and received good nursing care and good medical care. Space is likewise provided for suggestions for the improvement of care of the patients.

During the past year the hospital has inaugurated a new service — a series of clinics which have even lately been expanded to provide for a wide variety of special treatments such as arthritis, thyroid diseases, asthma and hay fever, nose and throat, hard of hearing, orthopedics, pediatrics. These clinics are run by the heads of the various departments in the hospital. Those who can afford to do so pay \$1 for an initial visit and 25 cents or 50 cents for each treatment thereafter. The indigent poor are, of course, treated for nothing. The small profit accruing from the dispensary does not go to meet the operating expenses of the hospital but instead to the doctor in charge in recognition of the additional work he assumes.

A further example of what can be done in making ends meet where proper supervision is present is manifest in the *Caledonian Hospital Clarion*, an attractive little magazine published in the interests of the hospital with Miss Young serving in the capacity of editor. This is mailed to members of the women's auxiliary, members of the medical staff and certain friends of the hospital. Subscribers are enrolled for a charge of \$1 a year. A few advertisements of local concerns make it pos-

sible for the hospital to break even on this very effective bit of publicity and even to show a small profit. Incidentally, the magazine has been in existence for three years which, in itself, approaches a record for institutional publications, and it bears every indication of a promising future.

The "superintendent holds, or should hold the key position in the institution. He should coordinate all departments to one end — the care of the patient." Doctor Tenopyr could not have more

accurately described conditions in the Caledonian Hospital.

During the seventeen years she has been identified with the institution, Miss Young has achieved the distinction of being responsible for a hospital that has acquired a standing second to none in its city. She also has demonstrated the benefits of close supervision in meeting expenses even during periods of depression, yet always the comfort of the patient has been first in her thoughts. "That comes," she confesses, "from having started as a superintendent of nurses. With such a background, you never can quite get away from the fact that the patient comes first always."

On her desk at the end of each day is placed a written slip showing the condition of every patient in the hospital. It is placed there between 6:30 and 7 in the evening. If the condition of any one patient is such as to cause concern, she gives instructions that the family be notified. Merely a safeguard against a complaint heard so frequently, "Why wasn't I told?" The same procedure takes place each morning so that she knows immediately upon reaching her office what has taken place during the night and the condition of each patient after the morning temperatures have been taken. Occasionally telephone requests for information come direct to her. These she can handle quickly by merely checking the report before her.

There is constant supervision everywhere throughout every minute of the day — close contact with every department, with the medical board, with the lay board, but with the patient placed first always. That is why a small hospital has been successful in making its way in a big city.

One Way to Meet the Hospital Needs of Rural Areas

By F. C. MIDDLETON, M.D.

Department of Public Health, Regina, Sask.

TO EXPLAIN why a union hospital system was developed in Saskatchewan it is necessary to know something of local conditions as related to hospital facilities.

The population of the province which in 1933 was 933,000, is 76 per cent essentially rural, as 8.3 per cent of the people live in the 385 villages, and 68.4 per cent live in the 302 rural municipalities. The tendency naturally is to establish hospitals in the larger centers, leaving the rural districts without easily available institutions. There is a like tendency for doctors to locate where there is a hospital. Twenty years ago these conditions prevailed here, with the result that the rural people began to seek a solution. They felt especially the need for a near-by hospital where emergency cases and maternity cases could be taken in, as many of the rural homes were very small and without room for dealing with cases of sickness.

In 1916, therefore, the government was requested to enact legislation along cooperative lines, making it possible for rural municipalities to unite with urban municipalities, that is with villages, towns or cities, in building a hospital. The result of this request was the passing of the Union Hospital Act in that year.

What Union Hospital Act Provides

Briefly the application of the act is as follows. A local and representative committee of those interested in the establishing of a union hospital district, is formed. This committee approaches the councils of the rural and urban municipalities it is proposed and desired to include in the scheme, in order to secure from each council a petition to be presented to the lieutenant-governor in council, requesting that a definite area be included in the proposed union hospital district, and that the hospital be situated at a certain central place.

Should a municipal council decline to present such petition to the lieutenant-governor then 5 per

The union hospital system, developed in Saskatchewan as the result of legislation enacted in 1916, is a cooperative scheme for spreading the cost of building and equipping a hospital over a district, with the additional optional feature of having actual hospital accounts of patients paid from municipal taxes if the people desire this to be done

cent of the ratepayers in each township in the proposed area may do so.

The lieutenant-governor in council may approve the petitions and issue an order defining the boundaries of the proposed union hospital district, naming the point where the hospital is to be situated, stating the total number of members to be appointed to the hospital board and the number of such members from each municipality in the scheme. Each council concerned is directed to appoint the allotted number of members, and the work of the original committee is then turned over to be handled by the newly appointed hospital board.

Representation on the hospital board is made on the basis of one member for an assessment of one million dollars, two members for an assessment of over one and less than two million dollars and three members for an assessment of over two million dollars.

The area of the hospital district may include from one and a half to four rural municipalities, with the urban centers located within such area. When naming the location of the proposed hospital, consideration is always given to existing hospitals so as to avoid encroaching on territory logically belonging to them.

On the formation of a hospital area the minister of public health is required to have pencil sketches of a suitable building prepared, together with an estimated cost of erection and equipment. This information is forwarded to the hospital board. The size of building is based on about one hospital bed for 275 or 300 of population to be served.

Should the hospital board accept these sketches and estimates it forwards them, along with the cost of a suitable site, to the local government board for approval. The local government board may increase or decrease the amount to be expended as it deems expedient. It also fixes the share of the estimated cost and the proportion of the annual expenditure which shall be borne by each municipality concerned.

The minister of municipal affairs then fixes a date for taking a poll on the scheme by those rate-



Union Hospital, Rosetown, Sask., a twenty-six-bed institution, is a part of the province's union system.

payers within the proposed hospital area. Two-thirds of those voting on the scheme must be in favor of it before it can be adopted.

When the scheme is ratified by the necessary majority of those voting, the union hospital board may issue debentures and do all things necessary to build, equip and maintain the hospital. The debentures are usually spread over a period of fifteen or twenty years. The payment of principal and interest on the debentures is met by the councils of the cooperating municipalities levying a tax on the ratepayers in the hospital district, to provide their share of the annual installments. The Union Hospital Act provides that the annual levy to meet the capital cost of the hospital must not exceed two mills on the dollar of assessment.

Before building is commenced the services of an architect must be secured by the board to prepare definite plans and specifications. These must be submitted to the minister of public health for approval.

In respect to maintenance costs of the hospital, if the expenditure is greater than the revenue each of the cooperating municipalities is required to contribute its share of the deficit. A union hospital board may enter into an agreement with any municipality not represented on the board providing for an annual contribution for the purposes of the hospital either by way of a fixed rate per day for

patients received in the hospital from such municipality or of a fixed amount in lieu of or in addition to such rate. An optional provision is also made in the Union Hospital Act whereby the union hospital board may make an agreement with the council of a rural municipality to treat at the expense of the municipality such classes of persons as are agreed upon. In other words a rural municipal council may, if a by-law is voted on and carried by the ratepayers providing for such, pay the hospital accounts of its ratepayers.

The whole scheme is one of cooperation, to spread the expense of building and equipping a hospital over the area included in the district, and there is the additional optional feature of having the actual hospital accounts of patients paid by the municipality if the people so desire, from the municipal taxes. We might take a supposed union hospital district to consist of the following:

Municipality	No. of Quarter Sections on Assess. Roll	Pop.	Assessment	Ratio of Assess. of Mun. to Total
Rural Mun. A	1,800	1,513	\$3,009,952.00	50%
Rural Mun. B	1,500	1,250	2,409,703.00	40%
Town C		550	367,132.00	7%
Village D		225	185,271.00	3%
	3,300	3,538	\$5,972,058.00	100%

This area would require a twelve-bed hospital, with nurses' home and isolation hospital, and would cost, with equipment, about \$28,000. Debentures would then be issued for twenty years at 7 per cent. The annual payment of principal and interest for capital cost would be as follows: for A municipality, \$1,322; for B municipality, \$1,057; for C town, \$185, and for D village, \$79, or a total annually of \$2,643. This would require a mill rate of 0.44 $\frac{1}{4}$ mills to meet the capital cost for a period of twenty years, or if we estimate the cost per quarter section of rural municipalities A and B, their part of the annual debenture payment would come to 72 cents per quarter section, or 87 cents per capita annually.

Cost of Treatment

Then if the district desires to give its ratepayers hospital treatment at the expense of the municipalities this is based on the assumption that one in every seventeen of the population requires hospital treatment for an average of thirteen days (this is the requirement for the whole province), and that the hospital charge is \$3 a day.

Treatment costs would therefore be as follows: For A municipality, \$3,471; for B municipality, \$2,868; for C town, \$1,262, and for D village, \$516, or a total cost for treatment of \$8,117. This would require a taxation of 1.36 mills or the cost per quarter section for the treatment of patients from

the rural municipalities would be \$1.92, or a per capita cost of \$2.30.

If we combine the capital cost and the cost of treatment it would amount to \$10,760 per year being a mill rate of 1.80 on the total assessment. On a quarter section basis for the part of the costs charged to the rural municipalities it would be \$2.64 per quarter section, or \$3.17 per capita.

In Saskatchewan there are twenty union hospitals in operation. In seventeen of the contributing rural municipalities in union hospital districts, hospital treatment at the expense of the municipality is provided and in nine other rural municipalities, the municipality may pay \$2 a day on the hospital cost and the patient is required to pay the balance. Then, of course, the hospitals receive also the provincial government grant of fifty cents per patient per day.

The twenty union hospitals have a total of 483 beds, which is 12.2 per cent of the total hospital beds in government aided hospitals in Saskatchewan. In 1932 the union hospitals admitted 1,442

maternity cases which was 13.4 per cent of the 10,750 patients admitted to these hospitals. This means that 24.5 per cent of the total maternity cases cared for in all government aided hospitals were cared for in the union hospitals although, as mentioned above, they comprise only 12.2 per cent of the total bed capacity. In 1916 only one in every 11 of the children born in this province was born in a government aided hospital. In 1933 one in every 3.5 of the children born in the province was born in a government aided hospital.

Thirty-three per cent of the cases admitted were operative cases. The average length of stay of patients in the union hospitals was thirteen days and the average cost per patient per day in these hospitals in 1932 was \$2.53.

The deaths in union hospitals in 1932 were 2.9 per cent of admissions, as compared with 3.6 per cent for all Saskatchewan government aided hospitals. The union hospital system has very largely solved the problem of providing hospital accommodation for the more rural areas in Saskatchewan.

Hospitals: Criteria of Charitable Character

A legal suit for damages in connection with burns suffered by a hospital patient that serves as a warning to hospital superintendents is reviewed in the *Journal of the American Medical Association*, as follows:

The city of Palo Alto, Calif., owned the Palo Alto Hospital. It gave possession of the hospital and its equipment to the Leland Stanford Junior University, which agreed to make an annual statement of the receipts and expenditures of the hospital and after deducting operating expenses and any working fund that might be agreed on, to pay the balance to the city. The university, from the tuition fees of each student, paid a stated amount to a students' guild, to pay the operating expenses of the hospital. A student entering the hospital paid only a part of the expenses of treatment, the balance being paid out of the funds of the guild. The hospital gave no free service to anyone. There were no free beds for which the hospital itself bore the expense. When the hospital received a patient who was not able to pay, payment was made by a charitable organization, known as the Palo Alto Hospital Auxiliary.

Mrs. Baker, a patient in the hospital, undertook to turn on an electric lamp. When she touched it, she received an electric shock so severe that she could not release her hand until after a nurse had disconnected the lamp from the electric current. It was later discovered that a part of the insulation surrounding the key which served to turn the light off and on was broken. The accident caused a third degree burn of Mrs. Baker's right hand, necessitating the amputation of her little finger and the removal of some of the little bones of her hand. The shock caused, too, great pain and seriously affected her nervous system. She and her husband sued the hospital and were awarded \$10,000 and \$1,000, respectively, as damages. From the judgment

the hospital appealed to the district court of appeal, first district, division 1.

The hospital contended, among other things, that it was a charitable institution and had exercised due care in the selection of its employees. The district court of appeal, however, was of a different opinion. The hospital was not formed and maintained for charitable purposes. No charity was dispensed by it. On the contrary, it charged rates usually and customarily charged by other hospitals. It made no pretense of receiving patients unable to pay for the service rendered, except when payment was guaranteed by the Palo Alto Hospital Auxiliary, an independent organization. Moreover, in California a corporation organized for public charity might conduct also an enterprise for gain and be liable for the negligence of its employees in that enterprise, even though the profits derived from it were devoted to the general purposes of charity. (*Stewart v. California Medical, etc., Ass'n*, 178 Calif. 418, 176 P. 46).

The court did not regard the damages awarded as excessive. The judgments of the court below were affirmed. — *Baker v. Board of Trustees of Leland Stanford Junior University* (Calif.), 23 P. (2d) 1071.

Is Your Hospital Adequately Insured?

What different types of insurance should a hospital carry to protect itself against claims that might be made against it or losses that it might suffer? Fire, elevator, boiler and malpractice insurance will occur to everyone. But they are only a few of the types that ought to be considered. In an article in the thirteenth edition of *The HOSPITAL YEARBOOK*, Alfred C. Meyer, president, Michael Reese Hospital, Chicago, lists a total of twenty-four different types of insurance that in certain circumstances should be carried by hospitals.

What Others Are Doing

Hospital Analyzes Duties of Employees

Anyone who is employed at the Graduate Hospital of the University of Pennsylvania, Philadelphia, before beginning work fills out the two cards shown below. These cards carry definite information regarding the duties of the employee and what he will receive from the hospital in return. Every employee has a budget number and each position is budgeted a year in advance.

For the majority of the domestic personnel and for the workers in several other departments the hospital has prepared job analyses on duty sheets. For example, the duties of nurses' aids in the wards are presented to each aid in the following form:

AIDS' DUTIES

7 a.m.—Report for duty.

7-8:30 a.m.—Help serve breakfast, make toast, feed helpless patients.

8:30-9 a.m.—Wash thoroughly and fill water pitchers in each ward.

9-10:30 a.m.—Wash tables in wards assigned; wash bedstead (occupied and unoccupied); dust bedside light; wash chairs, desk, window ledges, stools; change water for flowers and rearrange flowers.

10:30-11 a.m.—Thoroughly clean basins, utensils and utensil rack in the utility room; scrub tubs.

11-11:30 a.m.—Lunch.

11:30-1 p.m.—Set trays, assist with luncheon, feed helpless patients.

1-1:30 p.m.—Replenish drinking water in all pitchers and wipe table tops when necessary.

1:30-3:30 p.m.—Off duty.

3:30-4:30 p.m.—Put away linen.

4:30 p.m.—Supper.

4:30-6 p.m.—Set trays, assist with dinner service, feed helpless patients.

6-7 p.m.—Fill all water pitchers; wipe table tops; see that utility and all service rooms are in order.

7 p.m.—Off duty.

In this manner, the Graduate Hospital successfully budgets time and duties.

Dr. Donald C. Smelzer is the director of the hospital.

High School Work Carried on in This Hospital School

"A Little Story of the Children's Hospital of Denver" is the title of a brief, attractively written history of this institution prepared at the request of the board of directors by Mrs. George B. Packard who has been a member of the board since 1910. Like many another institution, the Children's Hospital started merely as an idea and for many of its early years was on an exceedingly modest basis. Later years have brought it wide recognition and generous support from citizens of Denver.

Among the interesting things recounted in the little book is the growth of a hospital school for patients. Kindergarten work started in 1917 and in 1921 a friend of the hospital made it possible to have a regular instructor. In 1922 a graded course for the children was started and in 1923 the junior league assisted with volunteer workers.

The Denver School Board took cognizance of the hospital school in 1929 and provided a full-time accredited teacher. The pupils now receive full

credit. Both bedside and class instruction are offered and high school work is also available. In 1932 the curriculum was broadened to include classes in literature, principles of public speaking and stenography.

Robert B. Witham is superintendent of the hospital.

"Every Baby Needs a Mother"

Finding its maternity facilities not being used to the degree expected, one Eastern community hospital adopted a campaign of education regarding maternity care with the slogan "Every Baby Needs a Mother." Coupled with the educational work was a flat rate maternity offer of full care, including all hospital care and the service of the patient's own family physician for \$60. One-half of this sum is payable on admission and the balance on discharge. On the first of the month following discharge, \$25 is sent to the physician.

In the educational campaign posters were placed in retail store windows. These contained photographs of the hospital's maternity units, statistics showing the advantages of hospital care, comparisons of the cost of home deliveries and deliveries under the flat rate plan, lists of the advantages to both the mother and baby of proper prenatal and delivery care. In addition displays in store windows with bassinets, figures and dolls demonstrated the care given in the hospital, the identification system used, the food trays served and the proper methods of dressing newborn infants.

The campaign slogan became so popular that even the politicians were repeating it. Occupancy in the maternity department has increased over 300 per cent since the beginning of the campaign and 95 per cent of the patients have paid the flat rate in full before being discharged from the hospital.

Name
1—Home Address
2—Description—Color..... Sex..... Age.....
Married or Single.....
3—Department
4—Title
5—Position No.
6—Classification Card No.....
7—Previous Experience
8—Date Service Began.....
9—Date Service Ended.....
10—Reason for Leaving.....
11—Reinstated
12—Remarks

Department.....	Title.....
Position No.....	Duties.....
Salary.....Per Year.....Per Month.....Per Week.....	
Perquisites:	
Meals—Breakfast..... Luncheon..... Dinner.....	
Room..... Laundry—Uniforms.....Laundry—Personal.....	
Vacation Custom.....	
Hours on Duty—Usual.....Monday to Saturday.....	
Saturday..... Sunday.....	
Hours on Duty—Special.....	
Hours Off Duty—Usual.....	
Hours Off Duty—Special.....	
Working Hours per Week.....	
Salary or Wages per Working Hour.....	

Basing Paint Purchase on Result of a Test

Have you ever bought paint as the result of a practical test? That is the way W. Mezger, superintendent of Knickerbocker Hospital, New York City, does it. "From our own experience and influenced by reputation, price and other factors," he says, "we selected four brands of paint for the test. Each product was applied in accordance with instructions by the manufacturer, a wall space of about 30 square feet being covered in each case. The application was allowed to age thirty days, then wash tests were begun, the walls being soiled with mercurochrome, ink or dirty grease. Careful observations were made after each washing. With intelligent effort much can be learned not only about paint but also about the relative merits of washing agents."

"The samples were finally judged on the basis of appearance, coverage, washability, permanence, service from the manufacturer and cost."

Follow-up Letter Brings Many Suggestions

Everybody agrees that it is desirable to find out what patients think about hospitals. How to do it—that is the question.

A plan in use at Ravenswood Hospital, Chicago, has succeeded in obtaining suggestions from about 50 per cent of the hospital patients. Anyone who has ever circulated questionnaires knows that this is a high percentage. The secret of the plan is tact and promptness.

On the day after a patient is discharged the following letter is sent him:

"Dear Former Patient:

"Your name is now one of many thousands of patients whom we have been privileged to serve. We hope that your stay was as pleasant as possible under the circumstances.

"In this respect you may render a valuable service to our institution. By filling in the enclosed card (using the reverse side for comments) and returning to us, in the addressed and stamped envelope, you may cause changes that will produce greater comfort and better service to those patients who are yet to come to Ravenswood Hospital. Tell us frankly what you think about our hospital with the same degree of interest that you would if Ravenswood Hospital were owned and operated by yourself. You, having been a patient,

can tell us from the patient's viewpoint. That's what we want.

"The sincere desire of the management is to establish a hospital service second to none. This cannot be done until we know our irregularities and our weaknesses. That's the purpose of this letter. All suggestions and comments will be acknowledged, carefully tabulated and will receive the careful consideration and attention of our executive committee.

"Will you please make this contribution for those of the sick and suffering who will receive service at the Ravenswood Hospital in the future?

"Very truly yours,
"The Management."

Enclosed with the latter is a card asking specific questions about the service which the patient received. All cards returned are promptly acknowledged and thanks are offered for any constructive suggestions made.

As a result of suggestions gathered in this way the hospital has made many changes in major and minor administrative policies. These have all been for the purpose of increasing the comfort or well-being of its patients. Furthermore the letter builds good will by showing that the hospital is really interested in promoting the welfare of its patients.

Public Library Benefits Both Patients and Personnel

Patients, nurses and employees at St. Luke's Hospital, Cleveland, are well supplied with books through an arrangement that exists between the Cleveland Public Library and the hospital.

The library furnishes a collection of books, varying in number according to the number of patients and personnel in the hospital. These are exchanged often enough to keep them fresh and up to date.

One day each week a librarian arrives at the hospital to spend the necessary number of hours consulting with the staff and stimulating reading and study. On other days of the week the hospital's director of religious work and education, assisted by

volunteers, distributes books to the patients.

C. S. Woods, superintendent, states that this service is greatly appreciated by the hospital which would find it impossible to maintain a library and library service in any way comparable to that granted the hospital by the public library. In one year as many as 12,898 books were distributed to patients and personnel.

One Hospital's Bid for Public Favor

At Evanston Hospital, Evanston, Ill., February 10 was Hospital Sunday. Churches of Evanston and friends of the hospital everywhere were urged to join in an effort to make Hospital Sunday a banner day. Display advertisements and publicity in local papers were some of the means used to win attention and support for the hospital.

Here are some of the facts the hospital made public regarding its work as a means to gain community good will. They were published in the *Evanston Review*:

DO YOU KNOW THAT—

5,857 patients were admitted to Evanston Hospital in 1934?

45,530 days' care was given Evanston Hospital patients in 1934?

236 visits were made to the out-patient department in 1915, twenty years ago when the clinic was founded?

20,118 visits were made to the out-patient department in 1934?

38,000 painstaking laboratory examinations were made in 1934; of these 6,600 were made for out-patients?

6,553 treatments were given in physical therapy department in 1934, 2,914 of which were for out-patients?

3,090 operations were performed in 1934, which is 300 more than last year?

108,796 patients have been cared for since the hospital was founded in 1891?

4,924 x-ray examinations were made in 1934?

6,410 persons have used the medical library at the hospital, including physicians, nurses, students, nonstaff individuals and investigators.

1,716 hours' work was given by the junior league to the out-patient department in 1934?

Probably you can think of one or more practical ways to save time or increase efficiency. The Modern Hospital will welcome your ideas to put before other hospitals



Standing guard over a grand parade of popular figures is a line of ducks, each carrying his gun over his shoulder.

Children's Ward Speaks Patients' Language

STRANGE sights, queer odors, wholly different surroundings from those to which he has been accustomed make the child's introduction to hospital life a memorable occasion and too frequently, a sad one. It is much the same feeling of desolation that engulfs the traveler who stands on deck peering into the unknown as his ship puts into a foreign port on the edge of evening. If only some familiar face were there to welcome him!

Hospital land with its white walls, rows of white beds, shining floors and everywhere that faint but unmistakable odor of anesthetics and disinfectants is strange territory indeed, which the average youngster approaches very naturally with fear and trepidation. If suddenly from out between the vast white curtains that seem to enclose everything as a ghastly shroud, there should emerge the cheerful grin of Mickey Mouse! Or it for no other reason than at that particular moment the Cow should decide to Jump Over the Moon, what a difference it would make!

when there on the wall almost at the very base of the bed Jack and Jill struggle up the hill to fetch a pail of water.

Next door, Little Miss Muffet, too, is having her troubles dropping her spoon in alarm as she spies sitting alongside her the spider of ill-repute.

That same imagination which has developed an ordinary roof into an exact reproduction of the deck of a boat and a large room on the top floor of the hospital building into a Chinese garden and lounge (interesting innovations which have already been described in these columns), has been exercised by A. A. Jaller, executive officer, and his staff in creating a children's ward that makes the hospital sojourn of each small boy or girl a memorable occasion, but this time one to be looked back on with pleasure.

White as a background has been discarded for yellow and orange, sunny happy shades which help produce an effect of sunshine even on the darkest days. All the woodwork is painted in these colors,

Just what a difference it really does make has been proved during the comparatively few weeks that the children's ward at Polyclinic Hospital in New York has been transformed from a ward in the usually accepted sense of the term into a fairyland inhabited by familiar faces. That very great pain in a very small ear isn't nearly so bad when there are friends to stand alongside—when right overhead along the partition which separates one crib from another, the Three Little Pigs march bravely by—

including the wooden partitions between the beds, also the beds themselves and the furniture. Dotted swiss curtains at the windows contribute to this color scheme with dots of yellow. Thus a cheerful atmosphere is created throughout the whole ward.

Many Old Friends Are Here

This serves as an excellent background for the scenes which have been painted directly on the walls depicting all the old nursery rhymes. There is the Old Woman with her Shoe and her numerous children. Rock-a-Bye Baby swinging happily in the tree top, Little Red Riding Hood and many other friends of childhood days — each is pictured in bright, gay colors which have an instant appeal to young eyes. The continuity of the series is not even interrupted by doorways, for these have been treated in the same manner and consequently resemble doors in no way whatsoever but look for all the world like the walls themselves.

The tops of the partitions which separate the double row of cribs occupying the center of the room afford just the proper setting for a grand parade of popular figures, cut out of wood and painted. These include more recent acquaintances, but none the less dear. First comes the band with the big bass drum, the cymbals and bugle. Next

in line, prancing gayly along, are Mickey Mouse and Minnie. Just behind them, the Three Little Pigs strut proudly. These figures are painted on both sides so that the same entrancing view is obtained from all parts of the room. As an added decorative note, the end of each partition facing the aisle has topping it a pyramidal Christmas tree standing in a tub. This, too, is made of wood and painted.

Looking down on this procession and standing guard over the many activities of the room is a line of ducks pictured on a deep frieze which forms an insert in one section of the ceiling. Each carries his gun over his shoulder and wears a tremendous hussar's cap with strap underneath his beak as he parades stiffly along between two guardhouses.

Hospital Staff Gets the Credit

All the planning and the major share of this work were done by the hospital's own staff. Services of a professional decorator were employed only in executing the mural effects.

As though this were not enough to delight the heart of any child and make him feel thoroughly at home, all manner of fascinating little details have been added to make restless hours seem less long, particularly during those dreary stretches of



the night which test the mettle of many an older patient. On a branch coming out of a wall sit three little owls as placidly as can be. Suddenly their eyes light up and blink. If requested to do so, they will oblige in this fashion for hours at a time.

At one end of the room stands the figure of a gnome who apparently has acquired the same habit. He will gladly try and help things along by winking pain away with a mischievous light in his eye that is irresistible. Far down the other end of the aisle, a lighthouse begins to flash its signals of red and white as dusk settles in the ward. Long after the little patients are sound asleep, this keeps twinkling off and on, dispatching encouraging gleams to those who wake up suddenly and find themselves in strange surroundings.

A Roof Garden Invites the Convalescents

Even the clock on the wall is dressed in nursery garb, its face emerging from a colorful setting in which two friendly looking birds stand by watching the minutes tick. The electric light fixtures, too, have been appropriately dressed for the occasion, colorful figures having been painted on their surface.

When the young patients convalesce to the point that they can be moved, a roof garden all their own invites them out of doors. Here the same close attention has been given to details. Little chairs

and tables are provided, finished attractively in green. All manner of toys and picture books are available. In the center, a little pool has been built in which goldfish disport to the delight of happy children, now safely headed toward good health.

And So, Why Dread the Hospital?

Yet the promise of good health even is not always sufficient to stifle cries of regret when the day arrives that good-byes must be said to all these hospital friends — to Mickey Mouse, the Three Little Pigs, the Old Woman Who Lives in the Shoe. There will be other meetings, to be sure — many of them, no doubt — but none affording the same intimate contacts as those of hospital days. The young patient departs to resume life where he left off, many times amid surroundings far less comfortable than those to which he has grown accustomed. His stay in the hospital becomes a pleasant memory. Never again will he view such institutions with quite the same sense of deep foreboding. He has confidence that there will always be a familiar face there awaiting him.

That is why Mr. Jaller and his staff at Polyclinic are disinclined to talk about the cost. It seems so small in proportion to the results already realized, to say nothing of those potential advantages of a citizenry that through the years has been made hospital-minded.—R. P. S.

The Community Must Meet Its Burden

By MILTON C. WINTERNITZ, M.D.

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IT CAN be readily agreed that hospitals must seek to understand and meet the economic and social changes of recent years. Any hospital blind to these will fail financially and in the efficiency of its service.

In New Haven the total amount of hospitalization as measured by hospital days of care has increased nearly 50 per cent in the last ten years, although there has been no increase in population and an apparent decrease in the incidence of illness. Obviously the residents of this community are using hospitals to an increasing extent. The explanation must be two-fold: first, homes are progressively less adequate in size and equipment for the care of the sick; second, the value of hospital care as a means of effecting the fullest and quickest restoration of health is becoming better established in the public mind.

At the same time, fewer persons are able to pay even the minimum cost of hospitalization and municipalities are less and less prone to foot the bill. It seems clear that hospitals cannot continue to sap their resources in the care of the indigent. This burden must rest upon the community, and the hospital ought to use its resources as a means of ensuring the presence of an adequate hospital staff and hospital

facilities in the community to meet immediate and potential needs. Private funds such as hospital endowments should not be used to ease the burden of taxpayers but rather to ensure progress in methods of hospitalization. Maintenance and development of standards have always been the true functions of philanthropy. This is a point of view which should be reiterated often in the community.

The hospital ought to make special efforts to provide good service for persons of small means who are not the proper recipients of charity. The demand for semiprivate facilities at a modest rate is growing and represents a sound development. There is a logical step from this to a group payment plan such as has already been adopted in many communities.

The hospital should insist on high standards. It should have the reputation of honesty in its work and in its charges. It should not succumb to pressure in the direction of performing more service than it can provide adequately. Every effort should be made to inform the community of the nature and cost of hospitalization, and the placing of the financial burden in each case where it properly rests should be stressed.

How to Recognize a Good Trustee

A trustee should: (1) make his contribution to the welfare of his hospital freely and without thought of personal reward; (2) whole-heartedly support the hospital superintendent; (3) have no personal contact with the personnel; (4) attend the monthly board meetings regularly

MUCH has been spoken and written in regard to the traits which should be possessed by the efficient hospital administrator. Surely, his qualifications, both of character and training, should be of the highest. And yet it is the board of trustees which largely determines the ethics, morale and effectiveness of any hospital. Given a board which is attentive, informed and possessed of high ideals, the hospital under its direction will surely be one to which it is safe for an ailing public to commit itself.

Service Must Be Free Will Offering

The position of hospital trustee should be one of high honor and respect in any community. If it is clear to those who aspire to hold such a position and to members of the community what responsibility this position involves, the higher will be the type of citizen who will be found on hospital boards. To undertake to fill the position of hospital trustee is definitely to obligate oneself to act only and always in the best interests of the inhabitants of the community, both singly and collectively. To seek such a position because of a thirst for prestige is at once to prove oneself unworthy of it. No stronger claim can be made to the respect of one's fellowman than to have served long years on a hospital board, without there having been evident one instance of self-seeking.

Particularly in governmental hospitals is the trustee more commonly observed who demands a quid pro quo—a reward for his labors in behalf of the sick. Here too frequently are observed evi-

dences of an attitude of searching for a personal recompense. Here not uncommonly is found a trustee who demands appointments for favored intern applicants or for nurses who desire to enter training. Such a pseudo-trustee is prone to demand the acceptance of patients on a free basis or a reduction of fees in the instance of personal or political friends. By so doing such a director announces his expectation of receiving a reward for the performance of a duty which should be promptly forthcoming from any good citizen. This type of trustee when discovered should be promptly returned without thanks to the community.

Before we consider personal qualifications necessary to a good board member, perhaps some negative statements may be set down as to traits likely to render him less serviceable to the hospital.

1. He should not be guilty of absenteeism at the regular monthly meetings.

2. He should never be too much concerned with his own private affairs to give time to the duties incumbent upon him as a hospital trustee.

3. He should never display an attitude of certainty that hospital administration is a simple matter and that hence it requires little if any training on the part of the superintendent and his department heads.

4. He should never exhibit an attitude of condescension towards the superintendent and his assistants but should look upon them as professional persons, worthy of his respect and that of the community.

5. He should never vacillate but should be ready to render an opinion courageously when consulted on matters considered important by the harassed superintendent.

6. He should always publicly support the hospital administrator, whether he be right or wrong, but if he is too often wrong he should courageously insist on his removal if such an action seems to serve the best interests of the hospital.

7. He should never demand that his ideas shall predominate because he is able to contribute largely to the hospital's support.

8. He should never err by inviting the close friendship of subordinate members of the hospital family, and the social entertainment of male or female members of the personnel by himself or by members of his family should be avoided.

9. He should never assume the attitude of an autocrat who attempts to strike fear into the hearts

of the hospital employees because of the power of his position.

10. He should seek continuously to enlarge his fund of knowledge relative to modern methods in conducting the hospital.

11. He should not accept the statements of disgruntled staff or other members of the hospital group relative to the reputed wrongdoings of any of the personnel, without personally verifying the truth of such statements.

12. He should require the same strict adherence to good business methods that he expects in his store or manufacturing plant, never allowing the lines of sound routine procedure to be broken down.

13. He should never commit the error of personally contacting hospital employees through any other medium than over the desk of the board's authorized representative — the superintendent.

All of these traits are never found among the members of any one board. Nevertheless, almost every board of trustees has sitting around its table, individuals who repeatedly transgress these basic, all important rules of board decorum.

Attendance at Board Meetings Essential

Attention is now directed in a somewhat more full and concise manner to these various qualifications. If a trustee is repeatedly absent from board meetings he loses interest in the affairs of the hospital and interrupts the trend in the story of the hospital's progress from month to month. A board member who cannot regularly attend monthly meetings cannot be of the greatest value to his institution.

The board of trustees which absents itself as a whole from the hospital and its atmosphere of busy service, by holding its meetings at a distance from the institution, is usually the board whose members rarely visit the hospital and which, knowing but little of its activities, readily accepts reports of the superintendent and his subordinates without question. Such a body soon becomes a collection of mere figureheads, accepting the honor but avoiding the real responsibilities of their position. Such a board may contribute generously to the support of the hospital but its moral influence cannot be as strongly felt nor can its interest be as continuously maintained as is the case when trustees are frequently seen in and about the institution, intelligently cooperating with the superintendent in maintaining a high degree of efficiency.

The trustee who finds that he is too busy to concern himself intimately with the affairs of the hospital is likely also to be frequently absent from board meetings. Such a person should not accept a call to serve unless his personal affairs will permit him to meet the obligations that are laid upon

the trustee by the community he represents. Before a new board member is elected he should be waited upon by a committee in order to learn whether he is able and willing to sacrifice his personal time and effort in the interests of the hospital. It may be said here that to spend much time and effort within the hospital is not always a laudable activity on the part of the trustee unless his presence there conforms to the basic rules of hospital administration. His headquarters should be the superintendent's office and in no respect should visits assume the practice of the detective endeavoring to learn about the acts of commission and omission on the part of the superintendent which may be brought without the knowledge of the latter to the attention of the board.

Hospital Administration Is Complicated

The hospital trustee who believes that institutional administration is a simple matter is one who requires much education. Such an institution, if this opinion is shared by his colleagues, is likely to have as its head, a superannuated minister of the gospel of splendid spiritual attainments but possessed of no administrative experience — a generous, godly but impractical man, soft-hearted and yet not businesslike. Or, a board of this opinion may place at the head of the institution a graduate nurse of splendid personality and scientific attainments in her field but with no business or administrative ability; or, again, a man who having failed in his own business, glibly promises financial reforms yet is not qualified to bring them about. Here one often finds a socially prominent directress of nurses, a frivolous head of the social service department and others of undoubted personality and sometimes tact but generally of low scientific attainments.

Hospital administration is a serious, difficult task requiring much training and a high degree of character, tact and skill. None will deny that a desire to do good is laudable, but a vision of the practical necessities to such an end is of equal importance. To demand that a well trained superintendent be secured and supported is prime evidence of the good trustee. He it is who insists that the members of the hospital personnel frequently undertake refreshment courses in their particular branch of work. He will insist that his colleagues support him in making possible the visit of the hospital executive and his department heads to hospital meetings and conventions and he will be the first to demand that his institution furnish to the hospital literature periodic contributions on matters touching effective institutional treatment of the sick. The board which shows no interest in these matters is one which encourages grooving,

putting and death from intellectual and administrative inanition.

Because a board maintains control over the institutional life and death of its employees should not lead trustees to assume an air of condescension or patronage toward these persons. Having secured individuals of undoubted training and character to act as department heads the board should require that respect be shown these persons. To maintain the self-respect of all, from the lowest to the highest in the institutional family, is to keep efficiency and morale at a creditable level. Members of hospital boards should of course never issue orders to the superintendent in the presence of others. Nor should instructions be issued except through the superintendent's office. To reproach a hospital worker in the presence of others is an unforgivable error of judgment, whether this is done by members of the board, by the executive or by any of his assistants.

Vacillation on the part of those in authority is a deadly enemy of efficiency. The superintendent is the direct representative of the board of trustees. He is granted authority only to carry out and make effective the policies passed on to him by his superiors. Nevertheless, he cannot succeed unless he is able to secure decisions promptly from the executive committee or from the whole board. If the executive is capable of truly representing the members of his board, he should be able to make administrative decisions without hindrance from his superior officers.

Board Must Be Loyal to Superintendent

Again, it should be stressed that trustees are a policy making body. The owner of a factory rightfully holds responsible the superintendent of operation for turning out a good and salable product. He does not interfere because he knows less about technical details than does his plant director. The board which administers is certainly not the one most likely to render the greatest service to the sick and to the community at large. Even though hospital directors are recognized as supreme in all matters pertaining to the welfare of the institution under their direction, yet a wise board will early recognize proper methods of administrative conduct and will require all to adhere thereto. Finally, the board gives orders to but one person and he is its chosen executive.

A board of trustees should publicly support the acts of the superintendent whether they be right or wrong. Nothing so quickly drags down hospital efficiency and morale as for members of the personnel to sense that the superintendent is not in the confidence of the board. When such a feeling arises some seeker for preferment in the hospital group

immediately begins to organize his party to develop support for his advancement to the position which he thinks soon will be vacated. Whisperings fill the hospital corridors. Discipline lags. The superintendent fears to act because he is uncertain as to the board's support. Soon this tide of unrest reaches the bedside of the patient. As long as the executive is retained the board should publicly support him. Just so long as a superintendent can be loyal to the board and satisfactorily perform his work, he should remain in the hospital group, but when he cannot honestly, privately and publicly support the board in its policies, his usefulness has come to an end and his place should be taken by one in sympathy with the institution's directors.

An Undesirable Trustee

Sometimes a man of prominence and wealth is sought as a hospital board member because of the personal, or financial contributions he may make to the hospital. It is in this type of person that one often observes the traits of the autocrat. He it is who frequently will neither confer nor conciliate. It is this type of trustee who is inclined to allow his judgments to be affected by personal considerations and who sometimes displays ulterior motives in reaching decisions, rather than in measuring the results of his acts in the terms of what is best for the patient.

There is great danger of board members allowing themselves to cultivate too strongly the social friendship of hospital employees. Certain results of such a policy are jealousies, misunderstandings and finally disrupted morale.

The scientific background of hospital work depends upon maintaining a modern and up-to-date institutional practice. Too infrequently does one observe on the desks of board members current hospital journals or other publications containing articles on better methods of carrying out the institutional treatment of the sick. Only to him who maintains an attitude of eternal dissatisfaction with his own information and capabilities, will come the best and highest type of service possibilities in hospital management.

These suggestions are most assuredly not offered in any critical sense. They are made with a full knowledge of the splendid and constant contributions to hospitalization which have been in the past and are now being made by an army of efficient and self-sacrificing trustees who above all desire to serve but who because of the existence of local conditions, have unconsciously fallen into practices not consonant with the best interests of the hospital. In a subsequent article will appear some concluding statements on the duties, prerogatives and practices of trustees.

Editorials

The Need for More Rural Hospitals

THE fact that 1,300 of the 3,073 counties of the United States containing 18,000,000 persons have no hospitals within their borders does not necessarily imply that local hospitals are required in all of them. But what does the absence of a local hospital mean? It may imply merely that good hospitals exist in a city just over the border of the neighboring county; it may imply that the county is mostly mountain, desert or grazing land with too few people to utilize or justify the existence of any hospital.

But when a hospital is needed and is lacking, what does its absence mean? It means that gravely sick people cannot secure surgical operation when they need it without a long, dangerous and expensive trip; that difficult cases of women in labor cannot be properly cared for with sufficient promptness to save life; that the x-ray facilities needed for diagnosing a fracture or an internal cancer are not available; that the physicians of the area are deprived of opportunity for self-education through professional association, and through the use of diagnostic and treatment facilities, without which medical men cannot keep abreast of the advancing science and art of their profession.

The study reported in this issue of *The MODERN HOSPITAL* brings forcibly before the people of this country the lack of hospital service in hundreds of rural areas. It is apparent that the county is often too small a unit to maintain a satisfactory hospital, and that hospitals should often be so located and organized as to serve the people of several neighboring counties. The need for a hospital in an area will be determined by the number and distribution of its population, the accessibility and sufficiency of existing hospitals as determined by distance, roads, topography and climate, and the practicability of providing a satisfactory professional staff from the locality, although it must be remembered that the establishment of a hospital is likely to bring additional physicians to the area, as well as to facilitate an improvement of its preventive health services. The practicability of maintaining a new hospital financially after it is constructed must be considered, but it is known that the existing county hospitals in small towns and rural areas are now substantially supported by paying patients, so that only a fraction of their cost needs to be met by taxation.

In some rural areas now without hospitals the establishment of a new hospital providing opportunities for major surgery would be neither necessary nor wise. Medical buildings, or "cottage hospitals," as the English call them, are desirable in such places, furnishing offices for physicians, simple x-ray and laboratory facilities, space for the county health officer and his staff, and a few beds for the temporary care of patients, without facilities for major surgical work.

In a period when the needs of our rural population are justifiably receiving special attention, and when unoccupied hospital beds in most of our cities are raising the question of a surplus of urban hospital facilities, the attention of the public works authorities should be directed toward the construction of hospitals and medical buildings in the 500 or 600 rural sections that need them. The proper governmental agencies can readily undertake studies for the location of such buildings as public works or work-relief projects, in which state and local communities should cooperate and which would be permanent contributions to the health and welfare of millions of American citizens.

Thirty Hours a Week

THE Black and Connery Bills requiring that industry limit the hours of its employees to six a day for five days a week were proposed at the opening of the last Congress (1933). The former bill actually passed the United States Senate on April 6, 1933, while the latter failed to reach a vote in the House of Representatives. A new bill sponsored by Representative Connery was introduced in the 1934 Congress and provides that a thirty-hour week provision be inserted in all national recovery codes.

These several bills have assumed that the burden of providing work for the unemployed should be borne by those whose hours of labor are shortened. Further, it is contended that to make jobs more scarce would improve the position of the worker and hence would raise wages, thus bettering the general economic condition of the masses.

No doubt these suppositions will be the basis of national legislative consideration in the current Congress. If so, again no doubt will the hospital be forced to fight for its economic life. Once more will it be required to genuflect before the lawmakers of the land and proclaim the charitable non-profit making nature of its activities even though from the days of Benjamin Rush has this fact been known to all persons of reasonable intelligence and open mind.

Thirty hours a week for hospital employees at the present rate of pay if such a regulation were to be universally applied would close the doors of a large number of worthy institutions. The hospital field is urged to be alert to the potential dangers of such legislation and to use its best efforts should the occasion arise to secure exemption from all of its crippling requirements.

The Moral Obligation

WHEN a hospital accepts a pupil nurse it undertakes a serious moral obligation. In effect it promises to house and feed her properly and to provide for her healthy recreation when her hours of duty are past. It asserts its intention of providing a thorough didactic and practical education in the science and art of nursing. It agrees to refrain from exacting from her too great a proportion of hours of menial or noneducational labor. It announces that it can and will provide a nice adjustment of didactic and practical experience so that neither will be willfully and deliberately stressed at the expense of the other.

Few hospitals that conduct nursing schools will demur in these statements. Nevertheless, the following state of affairs is too often found: Living arrangements and recreational facilities are sometimes less than mediocre. Teaching methods and personnel are ineffective and casual. The so-called practical experience preponderates and evening finds the pupil too physically fatigued to study intelligently.

Some hospitals save money by conducting their schools. When this is true a careful inspection of nursing school methods is always justified. To educate the nurse properly is almost as expensive as to use graduate nurses to care for patients. The hospital that for any reason takes lightly its responsibilities to pupil nurses should care for its patients with graduates and pay the current rate for their services.

Price Fixing for Hospitals?

THE question of uniform charges is being widely discussed by hospitals. Certain institutions have offered hospital service to insurance companies, governmental agencies and others at rates that are obviously below cost. The threat of a destructive price war has not always remained merely a threat.

It is natural that hospital executives should be influenced by the example of business under the NRA. The hospital has seen the prices of coal and

milk, for example, going rapidly upward and has usually found its protests unavailing. If price fixing works for business, why should it not work for hospitals, too?

This question should be studied from two angles. First, can it be done? Are hospitals sufficiently cooperative and do they offer sufficiently comparable service so that they can make the same charges? The best answer to that is the pragmatic one. It actually has been done in various places and with enough satisfaction so that it is being continued.

The second angle to the problem is how should such charges be determined? Here the hospital field can learn some lessons from the experience of business under the codes. Business men are beginning to realize that the right to fix prices carries more obligations than merely fair treatment of employees. It also involves consideration of the consumers, a factor that was woefully neglected when NRA was in its first bloom. The great danger is that prices will be fixed in the interests of sellers to the exclusion of the interests of buyers and that the present group of sellers will come to believe that they have a God-given monopoly which, whether efficient or inefficient, should be protected against all competition.

Groups of hospitals that are considering the establishment of uniform charges might well pause to consider whether these rates are to be established for the benefit of the community as a whole to protect sound, efficient and necessary hospitals against competition that really is unfair, or whether the purpose is to perpetuate institutions which may have had a distinguished service but have now outlived their usefulness. No barrier should be erected that will tend to lay a wet blanket on hospital economy.

Agreements Between Hospital and Patients

IT IS a singular fact that rarely are hospitals involved in litigation on matters related to the type of service they render to their patients. Mayhap this is because of the well recognized difficulty of recovering from charitable institutions for reputed injury to person. But the hospital's total disregard of the security inherent in an agreement signed by both contracting parties — the institution and the patient — is a matter that daily invites litigation by the unscrupulous.

Properly executed consent for operation, a signed release from responsibility for the premature discharge of a patient, a signed refusal to accept treatment, a written autopsy consent, are

the chief documents of importance that concern the hospital and the patient.

Every institution should possess carefully prepared agreement forms which cover these understandings. Rules directing the manner of their use must with equal care be drawn up and adopted, since even when such printed contracts are at hand the grossest carelessness is often manifested in their use. For example, one consent for operation does not cover permission for others of like character and risk on the same patient. The removal of specimens at autopsy is not legally permissible unless permission therefor is specifically granted in the postmortem form. A verbal refusal to submit to treatment has little legal standing should litigation arise.

To be sure, time and effort are necessary to the proper execution and filing of hospital and patient contracts. What of value can be secured without the expenditure of these two? The hospital executive will do well to check carefully the practices in his hospital which have as their aim the protection of the institution against the shoddy damage claims of unscrupulous patients.

Raw Material

A KEEN critic of medical education recently remarked in explanation of the pre-eminence of a great college of medicine that credit for this success could not be given so largely to the teaching staff of undoubted excellence as to the dean who chose so wisely those admitted to the freshman class.

The old adage that it is with difficulty that a whistle is formed from a porcine appendage surely may be applied to the business of training doctors and nurses. No school is capable of transforming an individual who is dishonest, slothful, crude, unmoral or intellectually dense into an ethical, straight-forward, refined, industrious and scientifically brilliant physician or nurse. The out-cast in medicine should have been cast out before he was handed a diploma. The crude, tactless, unethical nurse should never have been capped. The winnowing of the fit from the unfit should take place largely before the doors are permitted to close behind the freshman class whether its members are striving for a medical or a nursing degree. Those who, gaining entrance, are later discovered to be inept or personally or temperamentally undesirable should be separated from the student body at the earliest possible moment so that they may not have the opportunity to exert a harmful influence on others.

To attempt to prepare for the service of the

public young men or women who do not appreciate the seriousness of their calling and who because of inherent or acquired traits do not warrant the expenditure of time or money in their education is sheer folly. Moreover the cultural background of the applicant for admission to a training school particularly should be appraised. Nurses fail more often because of lack of refinement than because professional defects are present. It is a far cry from the surroundings of the general public hospital ward to those of the drawing room. Nevertheless, somehow, a knowledge of conduct appropriate to both must be possessed by the successful graduate nurse and the doctor as well.

When brilliant classes are graduated the instructional staff of a medical college or training school is less to be commended than the committee or person who selected the raw material.

Lay Dollars and Medical Science

IN 1897 throughout the heated month of July a layman with the aid of a medical dictionary toiled through the almost one thousand pages of Sir William Osler's new "Principles and Practice of Medicine." As a result he became convinced of the need for enlisting outside aid in solving the many mysteries of disease which he found depicted therein. From this stimulus there came into existence a great foundation dedicated to the prevention of disease and the discovery of its cause.

Thus were the outposts of medicine extended to the very horizons of the world. Thus because of epochal discoveries by workers under these auspices have countless lives been spared and the death dealing attacks of tropical disease particularly have been prevented or rendered less devastating. There have followed other great privately conducted campaigns against disease. Medical schools have been endowed by generous lay philanthropists; hospitals have been built and costly research has been inaugurated and successfully consummated. No such educational or curative activity can exist even for a day on earned income. The wisest and most astute of scientists cannot contribute a whit to the welfare of humanity unless financial aid from a nonmedical public is forthcoming.

Medicine owes much to those who have made its onward march in the science of both disease prevention and cure a possibility. When and if the cause of the dread cancer is learned it is safe to predict that the expense of maintaining the necessary costly study efforts will have been borne not by one trained in the laboratories of a great medical school but by one whose substance has been won in the hard college of business strife.

Forty-Six Red Cross Hospitals in Canada Serve Wide Area

By FRED W. ROUTLEY, M.D.

Director, Ontario Division, Canadian Red Cross Society

MANY of the results in better world conditions which it was confidently hoped by millions would result from the World War, have not materialized but at least one worth while result in Canada can be found in the Red Cross outpost hospitals.

Canadian Red Cross had become a powerful humanitarian organization during the war. The war being over, such a society could not fold its hands and cease all activities, so it turned its attention to a peacetime health program. A study of Canadian needs immediately focused upon the total lack of hospital and nursing care in the great north country.

Only those who have been fortunate enough to travel extensively in Canada can appreciate the vast extent of virgin lands, forests and rocky strongholds of precious metals yet untouched by human enterprise.

Even in areas where courageous young pioneers have blazed new trails and where new settlements have developed, communities are remote from each

other and the facilities they have are meager indeed.

Into these small settlements, which are the centers of large sparsely settled districts, the Red Cross has found its way and is doing a service which previously had never been attempted in any such widespread way in any part of the world. The only previous service of a similar nature was that done by Dr. Wilfred T. Grenfell on the Labrador Coast.

In order to understand what this service has meant to the settlers of these great scattered districts, you must know that in most areas there are exceedingly poor roads through long stretches of unbroken bush. You must also be aware of the fact that while the summers are beautiful and the land may bring forth bounteous crops when it is tilled, the winters are long and very cold and are accompanied nearly every year by tremendous falls of snow, which sometimes lies as deep as five and more feet on the level in the bush.

Because of these crude means of transportation



Interior view of a section of the Red Cross hospital car, in which doctors and nurses travel, carrying their equipment with them. This portable outpost hospital is used in the pioneer communities along the railroad lines in northern Canada.



The Bracebridge Memorial Hospital is typical of the Red Cross outpost hospitals in Canada. There are forty-six such institutions in the sparsely settled districts.

and the weather conditions, the energy, courage and fidelity to duty of Red Cross nurses who commonly go long distances on skis or dog sleds are almost without parallel. However, they live in communities where the courage of the people is of the same character. The following example will illustrate this.

"In the dead of winter with the temperature over forty degrees below zero in a little cottage in the heart of the forest, fifty miles from a doctor, in the middle of the night a young mother was suddenly taken ill. The husband was a hundred miles away working on the transcontinental highway. The oldest child was a girl of twelve years. She recognized the gravity of her mother's condition and in spite of protestations on the part of the mother, she donned her clothes and taking a lantern in her hand and stepping on to her skis she tramped seven miles alone through the heart of the forest to reach the Red Cross outpost. Together she and the nurse tramped back that seven miles, and the only professional assistance available within fifty miles was rendered to that young mother with perfectly satisfactory results, owing to the continued bravery of the young pioneer and the Red Cross nurse."

Two Distinct Types of Institutions

The first Red Cross outpost hospital was opened in Northern Saskatchewan in 1920. Today forty-six such institutions are to be found as vitalizing centers in sparsely settled districts. These include a beautifully appointed hospital car. They range in accommodation from forty beds to two beds. They are of two distinct types. First is the larger hospital which serves a large in-patient population and where most of the work in the district is done. A district public health nurse, however, is being attached to more and more of these hospitals.

The other type is the small hospital taking in only emergency cases. From these the nurses go into the district to visit schools and to make home visits or attend patients in confinement or other illness. This latter type of institution usually serves a large scattered area with no small town as its center.

These hospitals last year served 5,614 in-patients with a total of 56,977 hospital days, 9,185 out-patients treated at hospitals, 10,889 out-patients treated in homes, 2,301 out-patients treated in clinics; 2,347 operations were performed and there were 1,407 births in hospitals and homes. Visits were paid to 479 schools and 14,717 children were inspected. A total of 42,706 individuals were attended during the year.

Most Purchasing Is Done Centrally

Exceedingly well qualified nurses are always available for this work and careful nursing and general supervision are given to it from the provincial head offices, promoting a high type of efficiency.

Practically all purchasing for the Red Cross institutions is done centrally which is an important economy measure.

Complete control of the operation of these hospital units is vested in the provincial offices of the Red Cross. The local groups in the districts where the outposts are operated provide from other sources the cost of the buildings and equipment and are responsible for the upkeep of these. Thus, there is a fine cooperative interest in the whole project.

This is truly a chain system of operating small hospitals which are affording an opportunity to old established communities to assist new and scattered areas in providing facilities that promote good health, safety and comfort.

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NEW YORK CHICAGO PITTSBURGH

Electrical Flexibility Provided by Cellular Steel Floor

By H. H. MARSH

Structural Engineer, Washington, D. C.

A PREFABRICATED cellular steel plate floor erected and welded in place on 68,000 square feet of floor area in a new building for the contagious ward of Gallinger Hospital, Washington, D. C., provides a degree of electrical flexibility which makes the building adaptable to any kind of electric power utilization. In addition to assuring electrical flexibility, the cellular steel floor, because of its combination of light weight with great strength, reduces the dead load of the floor and permits a reduction of about 10 per cent in the weight of the steel interior frame of the hospital building.

The floor was placed rapidly and was immediately available as a working platform for the following trades on the building, greatly facilitating their operations. This feature aided the general contractor in overcoming to a large extent a delay caused by a general strike, lasting six weeks, of all carpenters in the District of Columbia.

The hospital building was originally designed

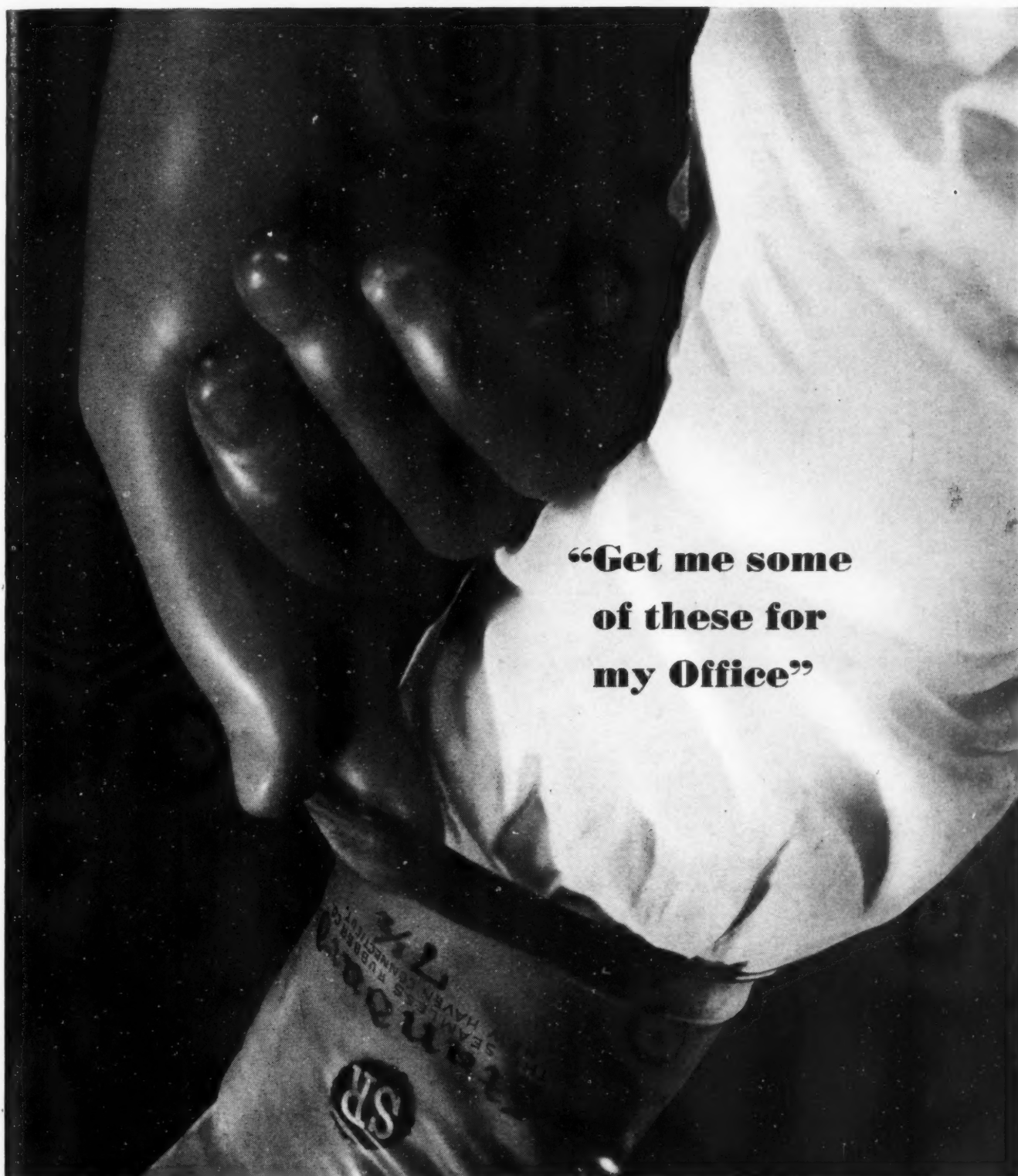
for concrete joist floors carried by exterior brick bearing walls and an interior steel skeleton. The design of the building later was modified by the architect to permit the taking of alternative bids on cellular steel floor construction. The modification consisted principally of a redesign of the structural steel interior framework to take advantage of a reduced dead load.

In plan the main portion of the building consists of a long central section, 136 by 44 feet in dimensions, with two divergent wings at each end. These wings are 82 feet long by 38 feet wide. In front of the main structure is an administration building, measuring 70 feet 8 inches by 44 feet in plan, connected to the main building by a corridor 24 feet long by 10½ feet wide. The complete building has a floor area of 68,000 square feet.

Except for a small four-story section immediately behind the administration unit, the main building is designed to be three stories high. Under the present contract, only the cellular steel system



Units of the steel floor being laid in place at Gallinger Municipal Hospital.



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For these gloves have what surgeons prefer. Thinness, that affords tactility. Fit, that leaves hands unhindered in their delicate motions. Strength, that gives protection to patient, surgeon and nurse.

To provide your staff with Seamless

Standard Surgeons' Gloves is not a luxury. Actually, it is a saving. The extra sterilizations they survive and their longer active life make them cost considerably less than others.

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THE SEAMLESS RUBBER COMPANY, NEW HAVEN, CONN.

was laid on the third floor, supporting a temporary mopped wood roof. The small four-story section of this building was erected to its full height, the fourth story being a penthouse enclosing elevator machinery and storerooms. The administration unit was erected to its designed height of two stories and was given a permanent roof. Unfinished portions of the main building will be completed when the need for a third story develops.

Substitution of the cellular steel plate floor on the hospital building reduced the designed dead load by more than 40 per cent — from 80 pounds to 45 pounds per square foot.

Plates Are Spot Welded

Standard sections of the steel floor laid on the Gallinger Hospital addition were 2 feet wide. Units of this floor system, however, can be prefabricated in the shop to any length required to fit plan dimensions. The floor unit consists of a top and a bottom plate, each formed separately in a rolling mill. Before forming in the rolling mill the plates for the floor units are sheared to exact length. After rolling, the plates are assembled in position as a unit and are put through a continuous pressure welding machine especially built for this operation. The electrodes are rollers in continuous contact with the plates, automatically spot welding the two together on the indicated double line between the cellular beams.

Following the welding operation, the completed cellular unit is given a protective dip coat of asphalt, which is baked on. This coating completely covers both the inside and outside of the cells. Each individual unit is marked at the shop for its exact position in the completed floor system of the building.

In order to use the cells as raceways, it was necessary that they be kept watertight. All openings in the top surface were sealed with cover plates screwed down and cemented in place with an asphalt cement. In the interval preceding installation of the crossover ducts, the duct openings in the top of the floor were covered temporarily to prevent construction dust and broken chips of brick and terra cotta from falling into the cells. The crossover ducts themselves were set with screws and sealed with an asphalt cement just before the floor finish was applied.

When considering the cellular steel floor as an alternative to the original floor design, the architect determined to utilize the full potentialities of the cellular construction for electrical flexibility, equipping every cell with necessary access fittings for future installation of wiring. Accordingly, all the cells were connected into appropriate crossover ducts, laid in the corridors, for high tension, low

tension and telephone service, with each group of three cells serving the three systems. Thus in the future any type of service can be brought into any desired spot in the entire floor area of the building, without remodeling and without expensive or bothersome work. The advantages of such an arrangement are obvious.

The wiring facilities required an access unit in one of the three crossover ducts at every cell. In spite of the added cost of installing a duct system providing maximum flexibility, the cellular steel floor still offered an appreciable saving over the alternative construction, which provided no under-floor duct system.

Because of the delay caused by the carpenters' general strike and the resultant dislocation of operating schedules, the possibility of rapid floor construction could not be demonstrated until the second floor was reached. When a unit comprising two wings and a portion of the central building, having an area of about 10,000 square feet, was released for floor, that area was erected, aligned and welded in three days and turned over to other trades for their work. When working at full capacity the erecting force consisted of a foreman, six men handling sections and a welder with a helper and an engineer.

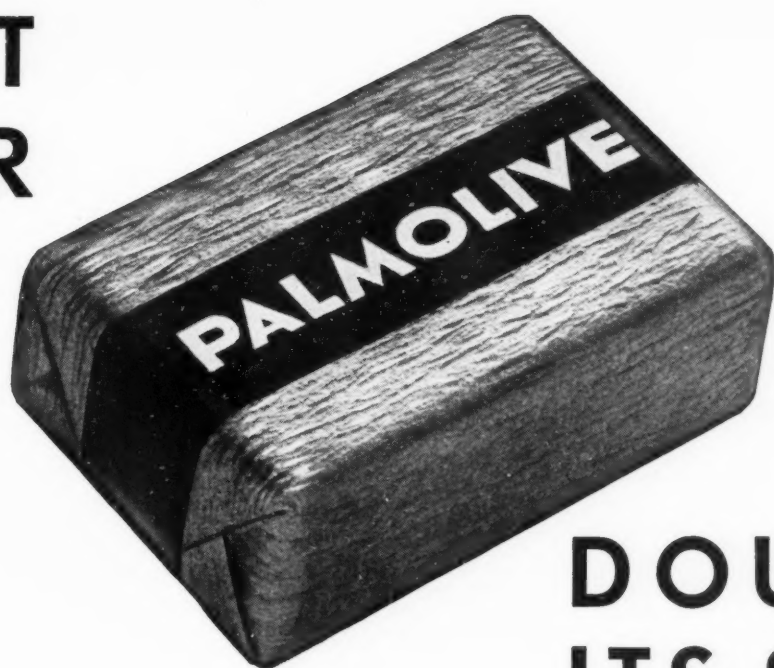
As the steel floor could be put to use by the bricklayers even before the welding was completed, it expedited operations of the mason subcontractor. The floor was utilized as a storage and working platform and as a base for the erection of interior scaffolding, all brick walls and face stonework being erected from the inside.

Corridors Are Surfaced With Rubber Tile

Holes were provided in the sides of the cells for hangers to support the cross-furred plaster and wire lath ceiling and to carry the plumbing pipes. Because of the ease of cutting openings in the steel floor it was unnecessary for other trades to put a man on the job until their erection crews were ready to go to work.

Specifications called for a lightweight concrete fill on top of the cellular steel floor, but this specification was amended by the architect to permit the use of a dry mixture of ordinary concrete. The finished floor is $2\frac{3}{8}$ inches above the top of the cellular steel floor and $8\frac{1}{2}$ inches above the top of the structural steel. Corridors are surfaced with rubber tile on concrete and have a terrazzo cove base molding. Except for the service rooms, which are finished with plain concrete, the rooms have terrazzo floors applied directly over the top of the fill on the steel deck. The floors of consultation rooms in the administration unit are covered with ceramic tile laid on concrete.

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Standardizing X-Ray Technique

By JOHN R. CARTY, M.D.

Radiologist, New York Hospital, New York City

THE efficiency of standardization of the radiographic technique at the New York Hospital is judged by three factors: (1) the maintenance of radiographs of consistently good quality; (2) the number of retakes; this is of importance and is often overlooked by the roentgenologist and the hospital administration alike; (3) the number of films per patient considered over a period of time not less than six months. Taken by itself this ratio may not be particularly significant but in conjunction with the other two factors it becomes important. In addition the ratio of the number of films per type of examination may be used if it is desired

to keep a closer check over shorter periods of time. If the radiographs are of consistently good quality, if the retake ratio is kept low, if the film per patient index is fairly constant, one may infer that the technique is well standardized, with obvious professional and administrative advantages.

In each of the control rooms there is a chart giving standard positions for the part to be examined. In addition, there is a series of settings for each part corresponding to the dial of the auto-transformer on the machine. This chart is worked out accurately for each machine. With the exception of the stomach and chest work where a measurement technique is employed, the technique is based on an average adult of 150 pounds. In some instances there is a separate chart for children. Whenever possible the same type of technique is employed in each room. Thus a technician may go from one room to another and be familiar with the operating conditions.

Requisition Cards Reviewed Daily

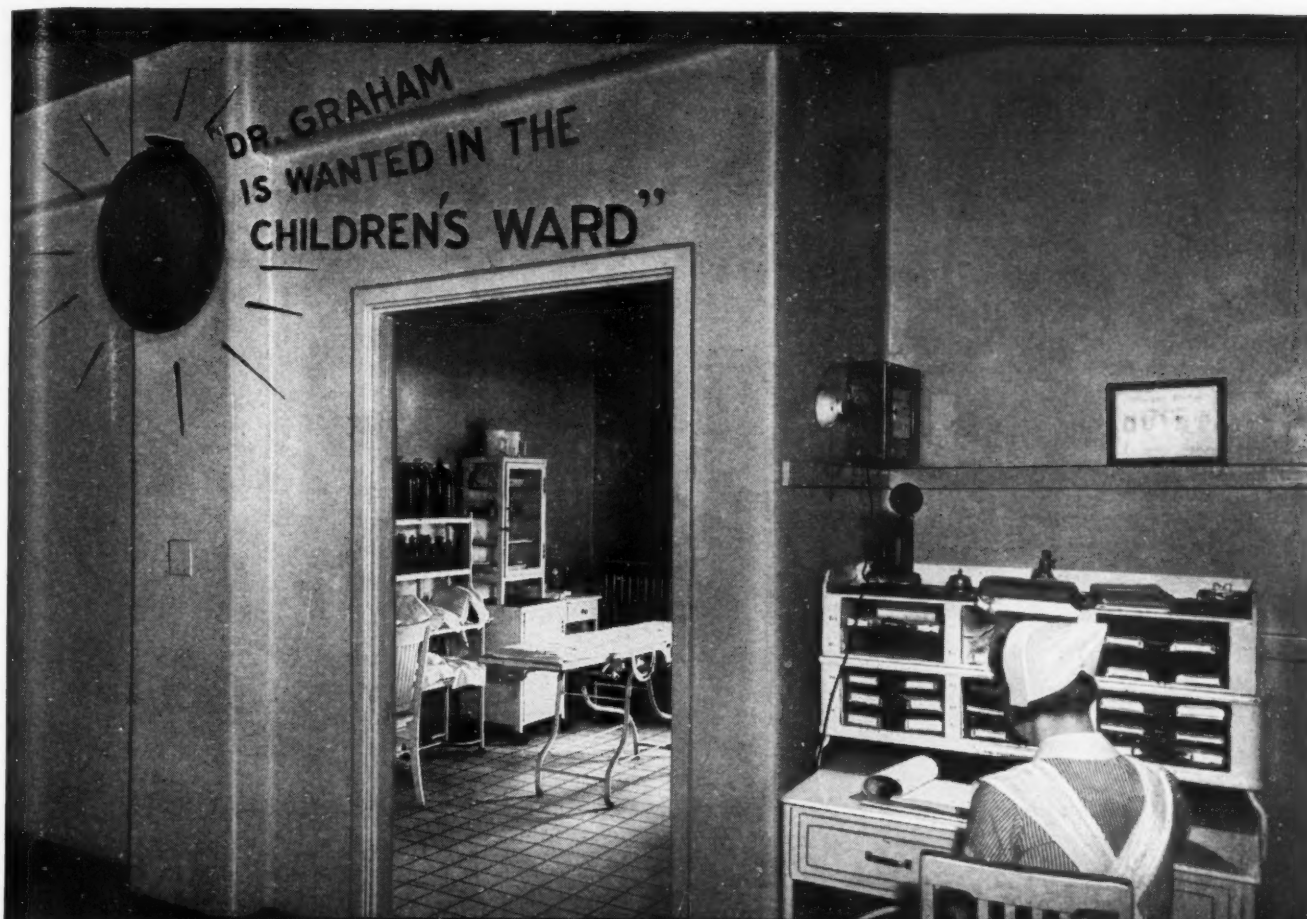
Every morning the roentgenologist in charge reviews the requisition cards with the head technician. Useless requests are eliminated and in many instances we are able to reduce the number of films even below the standard. Sometimes additional examinations are made obviating the necessity for a revisit. Complete filling out of these cards is obligatory. We consider this procedure of great importance although perhaps it is time consuming.

Many difficulties in obtaining consistent radiography may be traced to an overloaded power line. No degree of efficiency can overcome a fluctuating power source. Direct current is entirely unsuitable. Adequate primary power lines were provided at the New York Hospital.

An ancient radiographic outfit with poor regulation may be an unsuspected source of expense because of the number of films made before satisfactory ones are obtained. It is a good idea to



The chief dark room technician viewing an x-ray film and reporting its quality to the technician in a control booth.



If he's in the hospital he's within HEARING!

Like many other up-to-the-minute hospitals, Research Hospital in Kansas City uses a Public Address System for quiet and speedy "Doctors' Paging." The information operator speaks into a microphone—and her message is repeated instantly by 26 speakers throughout the hospital.

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calculate the number of films according to the machine used. Some interesting facts may be learned in this way.

Varying speed of intensifying screens in the cassettes introduces a costly variable which may be difficult to control. All of our screens are of the same make and are individually matched for speed. Thus we have entirely eliminated a variable factor in the technique. To use worn-out screens is poor economy. The x-ray films used are of one make and are as fresh as can be obtained. Whenever possible it is advisable to have the same emulsion number on each order. This may be of advantage particularly in a large department as there sometimes is a slight variation in speed between emulsion numbers even though they are of the same make.

Films Are Carefully Checked

No matter how careful one is with the technical procedures, certain variations creep in during the day's work. In order constantly to check these variations we have installed a telephone system from the dark room to the control booths. Each radiographic room has its own identification mark which is placed on the radiograph together with the serial number of the patient. If more than three radiographs from the same room show an identical error of technique, particularly of density, the technician concerned is immediately notified and the error corrected even before the film is completely developed or fixed. In certain of the more difficult classes of radiography the patient is

held in the department until satisfactory results are obtained.

The time of development is kept constantly at five minutes, deterioration of solutions being allowed for by increasing the temperature of the solutions each day instead of increasing the developing time as is usually done. This method, which is possible only when there is good thermostatic control of the solution temperature, has resulted in more uniform and accurate processing of films.

In the New York Hospital there is a small separate dark room where emergency and particularly difficult work may be developed by the technicians themselves. For instance, in gall bladder radiography the first film is developed by the technician who standardizes the technique and the remainder of the films are sent to the main dark room for development. Every morning the head technician and staff review the radiographs of the previous day which are placed side by side on a series of illuminators. Any variation of technique is quickly noted and the technician responsible is tactfully asked for an explanation. This procedure has been highly successful, the technician taking a personal pride in the work. We have often obtained valuable suggestions for improvement from the technicians themselves. It has been our experience that poorly trained low wage technicians are in the long run a source of great expense.

In conclusion it may be said that no system of standardization will work unless it is constantly supervised by a roentgenologist who has an inherent love for and appreciation of good radiography.

Are Cotton Towels Preferable to Paper Towels?

A large Midwestern hospital which had for many years used only paper towels in the public washrooms found itself in the fortunate position of having enough income to permit the raising of standards. One way of raising standards that was considered was the use of cloth towels instead of paper towels in the public washrooms.

To determine the total added annual cost of making this change the following data were collected:

The perpetual inventory card showed the annual consumption as 624 cases or a total of 2,340,000 individual towels. If each person using this service used an average of two towels each time he dried his hands this would mean 1,170,000 service units or an average of 3,205 service units per day.

In order to provide a comparable cloth towel service it would then be necessary to purchase a minimum of 6,410 towels in order to allow for one day laundry service. The

actual purchase requirements would, no doubt, be much higher than 6,410 in order to allow for peak loads and possible delays in the laundry.

The actual safe minimum purchase requirements were calculated at four times the average daily consumption or 12,820 cloth towels at a cost of 70 cents per dozen or a total cost of \$747.83.

Assuming that each towel would stand an average of 150 trips to the laundry every towel would make one trip to the laundry every fourth day and the original purchase of towels would be consumed in twenty months. Therefore the cost of the cloth towels would be \$37.39 per month or \$448.68 per year plus the laundry cost.

On a contract basis of 2½ cents per pound for laundry the estimated laundry cost per dozen towels per 150 washings would be \$3.37. To this figure should be added the first cost of 70 cents per dozen, making the total cost of \$4.07 per dozen towels for 150 trips to the laundry. Therefore, the total cost of cloth towels for twenty months would be \$4.07 multiplied by 1068½ dozen or \$4,343.84 or \$217.19 per month or \$2,606.28 per year.

Which Tells the Clearer Story . . .

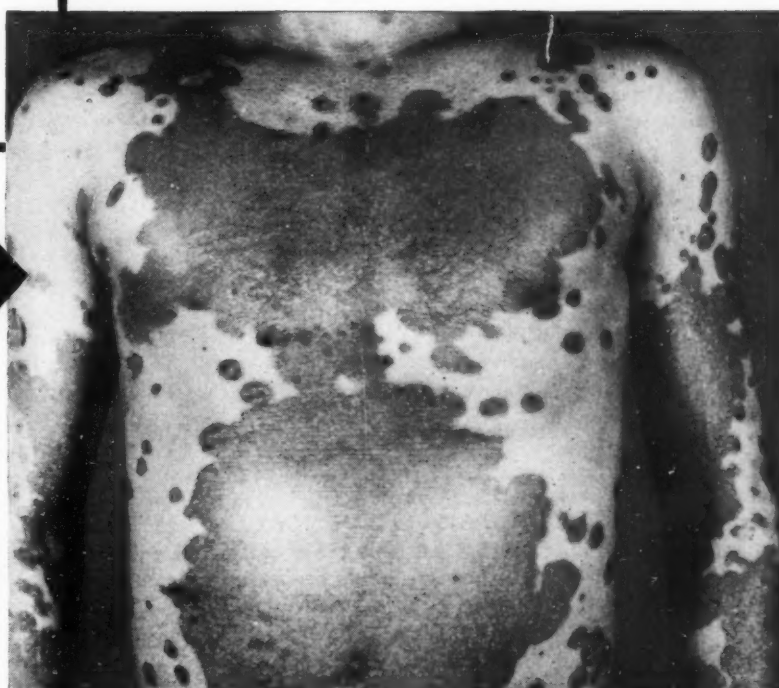
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words . . .

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Whenever detailed facts are wanted, words alone are weak. Even pages of carefully written description fail to give the clear, complete information found in a single picture. Up-to-date hospitals that take pride in the excellence of their case records, their instruction, their conferences, need the decisive information that photographs alone can provide.

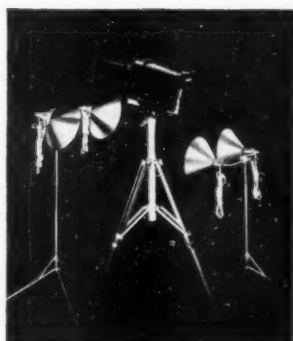


To produce good clinical photographs is not difficult. The Eastman Clinical Camera Outfit makes the taking of such pictures a matter of simple routine. In addition, copies of radiographs, lantern slides, enlargements and reductions are easily made. This Outfit is inexpensive; it is a most valuable addition to the equipment of any hospital.

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Since the annual paper towel cost consumption was 624 cases at \$2.33 per case or \$1,453.92, the cloth towel service would cost \$1,152.36 more per year.

These are the cost data but the cost falls far short of the whole story. Paper towels are much cheaper if one considers the cost of the towels only. To the purchase cost must, however, be added the added housekeeping cost of keeping the washrooms orderly. Paper towels require a large waste container in each washroom. Paper towels tend to get on the floor, some get kicked into the corridors and some fragments get down the washbasin drains and cause trouble.

Cloth towels are nicer and are preferable where one can afford them. Unless some device, such as eyelets and a rod or chain, is provided to control the towels the loss is heavy. When one provides cloth towels and then chains them up to prevent stealing some of the values of the finer and more expensive service are lost.

Theoretically both cloth and paper towels are sanitary. It is, however, a bit more difficult for an unused paper towel to become contaminated. There are, of course, cabinet contained roller towels but these do not lend themselves to hospital use. They are perhaps a bit too suggestive of the roller towel used down on the farm, and those sad dank roller towels they used to issue to the stockroom boys.

To summarize, this problem resolves itself into a question of how much one can afford to spend on towel service for the public washroom and the housekeeping costs that are incidental to whatever service one supplies.

Perhaps the real solution for this problem would be the installation of warm air hand drying devices which are much cheaper to operate than the cost of paper towels and never make the washrooms look messy. Incidentally the annual cost of paper towels and such other commonplace items is frequently more than one would ordinarily expect.

Student Nursing Costs and Standards

A few weeks ago a group of hospital administrators was discussing the relative costs and forms of student nursing service in contrast to graduate nursing service.

The first administrator said he thought that three student nurses were about equal to one graduate in his institution.

The next said that in his institution each nurse spent two two-hour laboratory periods on the floors each day but that the service they rendered was just about offset by the cost of the time of the graduate nurses which was required for the instruction and guidance of the student nurses. Student nurses for his institution, therefore, had no financial value.

The next speaker said that his institution used only a few graduate nurses and that student nurses worked eight hours each day on the floors in addition to the time spent at classes and in study.

The last administrator to report said that he had made an extensive cost study of the relative value of student nurses and graduate nurses and that he had found that a student was about 73 per cent as valuable as a graduate.

This is an excellent illustration of the fact that whether or not student nurses are costly or comparatively inexpensive depends entirely upon standards. Obviously, if the student nurses work a full day in addition to their class work the cost of nursing will be low. It is also obvious that if the student nurses spend most of their time in class and render but little service on the floors the cost will tend to be high.

Bulk Ether Warning

There have recently appeared in the various technical publications numerous references to the possibility of using bulk ether for anesthesia. The savings to be effected by the substitution of bulk U. S. P. ether for specially prepared ether for anesthesia might perhaps amount to a few cents per operation.

For the large city hospital with many operations each day and with an adequate staff of skilled technicians to check the bulk ether each day for the possible presence of aldehydes, peroxides and ketones, the new procedure may hold a promise of savings. For the average small hospital to attempt this new technique however is dangerous. The set-up for the safe use of bulk ether is far from simple and the technique of daily testing must be meticulously followed.

The set-up for the use of bulk U. S. P. ether consists of a cylinder of nitrogen, pressure gauge, reducing valve and reduced pressure gauge, flow valve and meter, water bottles, and connections, in addition to the supply of bulk U. S. P. ether, making a sizable financial investment.

For the average small hospital the risks are entirely disproportionate to the possible savings. A single unfortunate result is more vital than any possible savings.

We have always advocated any measure or device that might safely be used to reduce hospital costs. We still believe that each possible saving should be carefully explored. A considerable mass of clinical evidence in favor of the use of bulk ether should be presented before it is adopted for widespread use. It will take a long time, and the collection of data on a large series of cases, before any worth while statistics can be obtained in regard to the effect of bulk U. S. P. ether on patients.

Some well known physician anesthetists with widespread experience still maintain that small amounts of impurities in ether do have a deleterious effect on the patient's recovery, particularly as regards nausea and bronchial irritation.

The medico-legal aspect must not be overlooked. If a death occurs almost under any circumstance, when any but a recognized anesthetic ether is being used, opinion will at once question the ether, and it will probably be blamed for the fatality.

There are many hazards in connection with anesthesia when the anesthetics used are of the highest quality.

One well known anesthetist states that if ether cans are to be filled in the hospital from large drums, extraordinary precautions will have to be taken for the prevention of fires or explosions, as ether vapor will very readily creep along the floor.

Most of the large hospitals that are making detailed studies of the effect of bulk U. S. P. ether on patients are not as yet making routine use of this ether, when ether is the indicated anesthesia. The prime obligation of the hospital is to protect the patient.

Some Housekeeping Data

A survey of housekeeping costs in a Midwest hospital of 300 beds showed the annual cost of cleaning window shades to be \$499.79. In the same institution in the same year the cost of window washing was \$1,694.19. The cost of furniture refinishing was \$1,341.03.

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200,000 square feet of Sealex Linoleum—in service over five years in the New Jersey State Hospital—is proving so entirely satisfactory under every hospital condition that New Jersey State Hospital has chosen Sealex Veltone Floors for another new unit under construction.

Considered from any angle, Sealex is made-to-order for hospital use. This flooring is quiet and comfortable underfoot. It is easy to clean but hard to wear out—an unusually economical floor. And its bright colorful patterns provide the most practical means of adding cheer to any hospital interior.

Sealex Linoleum is also ideal for hospital remodeling. It goes down right over the present floor without costly, time-consuming preparation.

When Sealex is installed by authorized contractors of Bonded Floors, both materials and workmanship are backed by a Guaranty Bond. Write for information.

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These photographs show some of the 200,000 square feet of Serlex Linoleum installed in the New Jersey State Hospital, Holmdel, N. J.

Dietetics and Institutional Food Service

Conducted by ANNA E. BOLLER, Central Free Dispensary at Rush Medical College, Chicago

Small Economies That Bring Large Savings

By LUCILE WAITE

Chief Dietitian, Fairmont Hospital of Alameda County, San Leandro, Calif.

IT IS easy to understand why small leaks can undermine a seemingly efficient organization when you study them in a large institution such as the hospital in which I am employed.

We serve meals to approximately 1,200 persons, which is a matter of some 3,600 meals a day, with an average somewhere between 105,000 and 106,000 meals monthly. Figuring on the basis of 105,000 meals a month, a saving of one cent on each meal would mean a saving of \$1,050 each month.

A dietitian does not often cut her meal costs this much if she has been working close to her established standard and knows market conditions. However, in these days of advancing food prices she has to do close figuring to keep her meal costs from increasing one or even two cents, and still maintain her old standard which, we assume, is giving satisfaction. It is a poor policy to reduce meal standards because the culinary department controls the pulse of any hospital. One poorly planned, prepared or served meal will immediately cause dissatisfaction throughout the entire organization.

It is therefore of the greatest importance that we practice every possible economy in the operation of the dietary and culinary departments provided that it does not cost more to put this economy into effect than is actually saved. Naturally each hospital dietary department has its specific problems and what would be a saving in one institution may be a loss in another. Many small hospitals would waste time and money practicing some pet economy of a large institution.

For the sake of clarity I shall present some little economies that we practice at Fairmont Hospital under the following headings: (1) the diet laboratory; (2) equipment; (3) cost accounts; (4) personnel administration.

In the special diet laboratory we find economy in using printed forms for menus and special diets. These forms have as much of the routine as possible printed on them, such as bacon, eggs, bread, butter, milk, cream, coffee, tea, and the amounts and variety are added by the dietitian. These forms are also colored, blue for diabetic diets and yellow for all other specials. Because of the simplicity in identifying the diet slips much time is saved and confusion and mistakes are practically eliminated.

Reducing Diet Laboratory Work

In writing special diets time is saved, first, by using as much of the regular menu food prepared in the main kitchen as possible, which of course is ordered ahead of time from the chef, and, second, by writing a special diet menu from which all special diets are written. This keeps the diet laboratory work down to a minimum by limiting the varieties of foods prepared. If a second vegetable is desired, other than the one prepared in the main kitchen, one should be put on the special diet menu which can be used for all special diets, even puréed for the smooths. It is poor management to give one patient one kind of vegetable, a different patient another vegetable, and so on until you find you are filling your stove with a number of kettles containing only small portions of food.

We use uniform figures for diabetic diets as far as possible, especially in the amounts of bread, butter, bacon, milk and cream. The bread, butter and bacon are each cut in uniform servings of a given weight by mechanical slicing machines and are not weighed each time. The diet maids in the ward kitchens have been taught to measure amounts of cream and milk for these diets. In this way the five articles just mentioned are not handled in the special diet laboratory but are sent to

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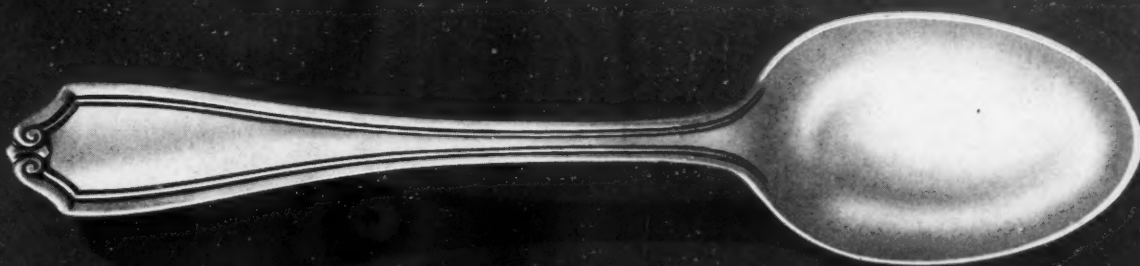
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972 Mission Street



the ward kitchens in bulk and set up by the maids.

Until approximately four months ago special diet food was transferred from the diet laboratory to the ward kitchens in custard cups. It was reheated in these cups and finally served to the patient on regular hospital china dishes. With the great number of custard cups required by this system it is not surprising that the breakage was high. In an attempt to reduce this breakage we put into use empty No. 1 tins (both tall and flat) which had previously been thrown away. They are entirely satisfactory and have saved the department over \$7 a month in breakage. Custard cups are now used for baking alone.

We find that frequent visits by the dietitian to the patients tend to create satisfaction. It is important for the dietitian in this case to develop diplomacy and an attractive personality. The patient should be asked to name the foods he likes. No mention should be made of dislikes. The dietitian should sell herself. Some dietitians can feed anybody anything while others create a feeling that "even if it were good I wouldn't like it." An understanding of the psychology of color, beauty and personality plays an important part in this business of feeding the sick.

In speaking of equipment it must not be forgotten that good tools make better workmen, and it is imperative that all tools be in good working condition. It is a good idea to assign the operation of mechanical devices to certain individuals in the kitchen so that they may be held responsible in this connection. If responsibility is divided, interest for the welfare of the machinery is not so keen because the blame cannot be pinned upon any one person.

Labor Saving Equipment Is Economical

Labor saving and money saving devices are not always expensive pieces of equipment. Little butter slicers, for example, which cut an entire two-pound roll of butter with one motion cost but \$1.50. By the use of such a cutter, not only is time saved but waste because of uneven and broken slices is eliminated. These slicers may be purchased in sizes to cut from thirty-two to fifty-two pieces of butter per pound, and even four extra slices to every two-pound roll would mean a substantial saving at the end of a month. We find it practical to use a more expensive butter cutter because we cut an average of 2,800 pounds of butter monthly.

Mechanical bread slicers are also advantageous. We find that with a good machine we can get two extra slices of bread per pound, a saving in our case of sixty-five pounds a day. At five cents a pound this would mean an actual cash saving of

\$97.50 monthly. Cold meat may also be cut on this machine with the result that thin uniform slices make a pound of meat go further than the same amount cut by hand.

Automatic ice cream dippers are used in our department for serving mashed potatoes, dressing and vegetables, as well as ice cream and puddings. These may be purchased in sizes which serve from six to forty per quart and they ensure not only uniform servings but also more attractive ones. You will find that small attractive helpings are more desirable than large unappetizing ones.

How Accounts Are Kept

There is decided economy in keeping cost accounts and it is well to remember that the weighing of values contributes to growth and wisdom in future decisions. We tabulate all canned and perishable foods as to quality, unit cost and cost per serving. These records not only help us to keep within the limits of our budget but facilitate intelligent purchasing.

A monthly financial report of the entire expenditures of the department, made out with as much detail as possible, is highly recommended. Irregularities of expenditure may be traced immediately by this system and it is our policy to show the figures of the past month on the current report for the purpose of comparison. A record of this kind, although it may appear to be complicated, may readily be compiled from the main office ledger by the dietitian or by her assistant. The figures may then be conveniently averaged and recorded annually, being incorporated in a report which also includes such things as percentage labor turnover, number of days lost because of illness, number of days given for vacations and a general summary of the work and accomplishments of the department for the year.

Economy in personnel administration is noted by the willingness to work hard and the interest shown when employees see the balance sheet. There will be a reduction in unit costs as soon as your employees are taken into your confidence and feel the importance of their position as part of the scheme which makes up the whole organization.

A person cannot be interested in something about which he knows nothing and talking is not always the most effective means of presenting information. We have found that graphic charts have a real value in reaching the employee. They challenge his spirit in competition and show his efforts pictorially. Charts may be posted in the kitchen showing fuel and water consumption, dish breakage and meal costs. When these records drop the employees should be complimented and when they rise the employees should be questioned. It

INFANTILE DIARRHEA

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is always wise to look for the reason behind any change, whether up or down.

Monthly departmental meetings are valuable means by which the department head may learn the way her people think. They also offer an opportunity for the employees to know each other better, to know the department head and to understand the policies of the organization. Although they should be informal they must be conducted in a businesslike manner and must be interesting enough to stimulate discussion and encourage the asking of questions. All questions should be clearly and truthfully answered because an employee is entitled to know the reason behind policies and regulations. If employees feel that they have been taken into the confidence of the administration they will be more loyal and much more interested in the welfare of the organization.

It is a good policy to read the monthly financial report at these meetings and to discuss the impor-

tant items, such as dish replacement cost, cost of paper napkins, cleaning supplies and foodstuffs in general. Orders and new rules that affect the employees as a group should be given at a meeting of this kind so that there will be no misunderstanding by individuals regarding them. We have obtained satisfactory results by inviting all department heads to meet with the culinary employees and to present a brief outline of the work and aims of their respective departments. They may also answer questions and in this way overcome many doubts and misunderstandings.

In directing employees it is well to be clear and specific at all times. One may be positive yet inspirational in one's leadership and be more successful than a dynamically positive person who drives her help. In handling employees we soon learn that we are not managing machinery but human beings who think and possess emotions. If you can stimulate them to take pride in their work

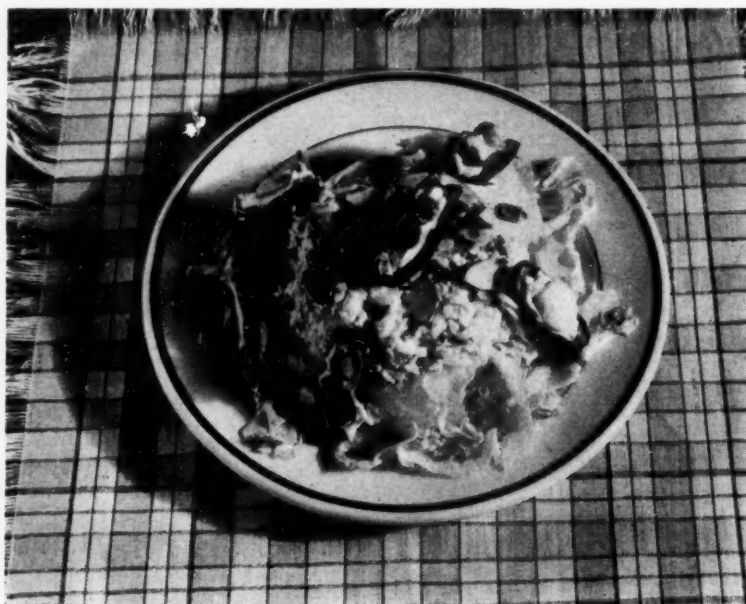
and inspire them to play this game of life squarely you need not worry, you will be rewarded by the improved quality of their work.

All orders should be written. An efficient means of producing a smooth-running department is to post on the wall a working schedule for each employee. These schedules should give the exact hours on duty, the day off and the routine duties of the position numerically listed, the time being given for each duty if possible. If the work differs each day, as a porter's work will, list the duties for each day. This method not only saves arguments in the kitchen regarding "who is to do what," but also saves time in training new employees. At the bottom of each schedule it is well to add this sentence, "Any additional work as directed by the chef or dietitian."

An up-to-date card file of both past and present employees, the use of uniform application for employment blanks, a daily or weekly garbage survey, the sale of garbage for hog feed, a system of broken dish exchange, a method of salvaging and selling fruit and vegetable crates, the making of soap from waste fat are a few more hints which might be adopted as a saving by a department that does not already practice them.

No. 9—Nutty Salad

By Arnold Shircliffe*



Lettuce
Cottage Cheese
Sliced Nuts

Dates
Cream Cheese
Red and Green Peppers

ON A base of lettuce place a small amount of cottage cheese and sprinkle cheese with sliced nuts and chopped red and green peppers. Garnish top of salad with four fresh dates, which have been previously stuffed with cream cheese and topped with nuts. Serve with a good French dressing.

This is a nutty concoction yet nutritious. It looks expensive yet is quite economical. On account of this latter fact it should be served on the first of April.

*Author of the Edgewater Beach Salad Book.

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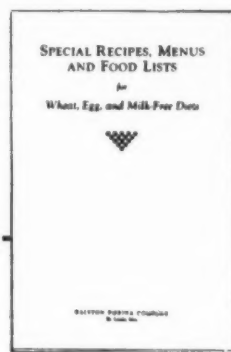
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Food Poisoning—What May Cause It and What May Prevent It

By HARLEY A. HAYNES, M.D.

Director, University Hospital, Ann Arbor, Mich.

THE possibility of food poisoning outbreaks is of constant concern to those responsible for the feeding of large groups. In this hospital approximately 5,000 meals are served daily and it has been a source of pride to us that we have been free from such outbreaks — until Sunday evening, October 28, 1934.

The evening meal was served from 5 to 6 p.m. to 335 members of the hospital staff. These included nurses, interns and dietitians. Of this group, many began to show signs of nausea and vomiting within about three hours after partaking of the food. A total of 231 showed some form of complaint. Several reported for duty that very evening while many reported for duty the next morning. The symptoms of those who were acutely ill, were nausea, vomiting, diarrhea and griping pain in the abdomen. In some cases the vomitus and stools were blood streaked. In about 3 days almost all were back on duty. Three remained under clinical care 5 days; one, 6 days; one, 7 days and two, 14 days. Of this latter group, six had concurrent disturbances unrelated to food poisoning.

An investigation was immediately instituted under my direction with a view of establishing the nature and cause of this outbreak.¹

From the beginning of the outbreak one food on the menu of the evening meal of October 28 was suspected as the causative agent of the symptoms. This was the chicken salad. Chicken used in the preparation of this salad was cooked and deboned on the previous day and kept in the refrigerator overnight. On the morning of the twenty-eighth the chicken was cut and diced and used in the preparation of creamed chicken which was steamed and served to the hospital patients for their noon meal. No patient reported illness following this meal. The remaining diced chicken was served in the form of salad to members of the hospital staff for their evening meal. Of the other

foods served the staff that evening, the bread and butter as well as the dessert were the same as those served to the hospital patients. The potatoes served also did not seem to have caused the outbreak, in view of their constant use without ill effects. Ripe and green olives were served that evening which evidently required study.

The rapid onset of the symptoms of those who ate the evening meal suggested that we were dealing with a bacterial toxin present in the food. If the disturbance were due entirely to bacteria and not to a toxin it would seem reasonable to expect that some incubation period, let us say ten hours, would be required in most cases for the organisms to gain a sufficient foothold in the intestinal tract to produce symptoms. Furthermore, after symptoms had set in they would have been likely to continue after the subsidence of the acute attack, since the same organisms would show a tendency to adhere to the intestinal mucosa and continue their damage.

The comparatively rapid recovery of those who ate the evening meal when the attacks of vomiting and diarrhea came to an end, suggested that as soon as the toxin was eliminated the causative agent of the vomiting and diarrhea was eliminated. It is not assumed that no organisms that produced the toxin were taken with the food. It would appear, however, that they played an unimportant rôle in causing the symptoms.

Source of the Bacterial Toxin

A consideration of food poisoning brings to mind at once three relatively common groups of organisms: the botulinus group, the Salmonella enteritidis, belonging to the paratyphoid group of organisms, and the Staphylococci. The botulinus group was ruled out early in this outbreak because of the rapidity and nature of the symptoms exhibited. Symptoms of botulism begin to set in usually from about twelve hours to several days after partaking of the food. There were, furthermore, no indications in our patients of double vision, ptosis of lids and other nervous symptoms common in botulism. It appeared therefore that the outbreak

¹This investigation was carried out by a committee, which consisted of the following personnel: Dr. A. C. Kerlikowske, chief resident physician, Mabel MacLachlan, chief dietitian, Marion Durell, superintendent of nurses, Dr. C. L. Brown, in charge of the clinical care of those who showed disturbances, and Dr. R. L. Kahn, chief of the clinical laboratories. I should like to express my appreciation to the members of the committee and to the other members of the hospital staff who have given splendid cooperation in the work of carrying out this investigation.

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3. PRUNES CONTAIN IMPORTANT VITAMINS IN SIGNIFICANT QUANTITIES. California Prunes (as sold) are an excellent source of vitamin A (500 Sherman units per ounce of flesh); good source of vitamin B (22 Sherman units); and an excellent source of vitamin G (80 Sherman units).

4. PRUNES CONTAIN ESSENTIAL MINERALS. Considerable amounts of mineral elements are contained in California Prunes, including calcium, potassium, phosphorus, sodium, iron, magnesium, manganese, copper, chlorine and sulphur.

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The important results of this research are now available in the following bulletins and will be sent free on request to nurses, doctors, dietitians and others connected in a professional capacity with recognized institutions. Merely check the material you desire in the coupon below.

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We will send any or all of these booklets free. Merely indicate in the coupon the material you wish. Meanwhile try the suggested new recipe below. You will be delighted with the tastiness given to this pudding by the rich flavor of tender California Prunes.

A Suggestion: *Prune Layer Pudding*

(Serves 100)

- | | |
|--|---|
| 4½ quarts cooked prunes | 14 tablespoons granulated gelatin |
| 1½ quarts liquid in which prunes were cooked | 1½ quarts walnut kernels |
| 1½ quarts water | |
| 1½ pints granulated sugar | 1½ quarts milk |
| 3 teaspoons grated lemon rind | 6 tablespoons granulated gelatin for milk |
| 4 tablespoons lemon juice | 1½ quarts whipping cream |
| 1½ teaspoons salt | 12 tablespoons granulated sugar |
| | 2 tablespoons vanilla |

Pit prunes and put through food chopper, using medium knife. Combine with prune liquid, water, 1½ pints granulated sugar, lemon rind, lemon juice, and salt, and heat to boiling. Add 14 tablespoons gelatin moistened in cold water and stir until dissolved. Add nut kernels and mix. Pour into a

shallow pan (mixture should be about 1-inch thick). Let stand until firm. Scald milk, add 6 tablespoons gelatin moistened in cold water and stir until dissolved. Whip cream until very thick; whip sugar, chilled milk and vanilla into cream, spread over prunes and chill. To serve, cut into squares.

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might be due either to members of the paratyphoid group or to Staphylococci.

A bacteriologic study was made of the following foods served Sunday, both at lunch and at dinner: olives, tomato aspic, creamed chicken, sliced chicken, chicken salad and also uncooked chicken liver. Hemolytic Staphylococci were found in large numbers in the sliced chicken and chicken salad and no members of the paratyphoid group were found.

Features of Staphylococcic Food Poisoning

Most food poisoning outbreaks reported by European workers incriminate organisms of the paratyphoid group. A considerable number of outbreaks reported in this country appear to be due to Staphylococci. These organisms, producing toxins in foods, are usually of the aureus variety and are hemolytic. Jordan, at the University of Chicago, recently reported (Jour. Am. Med. Ass'n 97:1704, 1931) six instances of food poisoning due to Staphylococci, and, in addition, four instances that were most likely due to these organisms.

Outstanding features of staphylococcic food poisoning are:

1. Marked rapidity of onset of symptoms. Often nausea, vomiting and diarrhea will set in only a few hours after the partaking of food. The onset of symptoms resulting from food poisoning by the paratyphoid group is generally delayed for about twenty hours. Considerable variations as to the time of onset are observed in both types of food poisoning, but usually the symptoms appear more rapidly in the case of the staphylococcic food poisoning.

2. High susceptibility of human beings to staphylococcic toxin and apparent lack of susceptibility of lower animals, including monkeys, to this toxin.

3. Lack of fatalities reported as a result of this form of food poisoning. In the case of the Salmonella group of organisms, the mortality resulting from food poisoning is from 1 to 2 per cent.

4. Apparent lack of a specific Staphylococcus that is responsible for food poisoning. Both albus and aureus types have been found in connection with such outbreaks, although most commonly, hemolytic Staphylococcus aureus is the incriminated organism. Whether or not all hemolytic Staphylococci of the aureus type are toxin producers in food is not known.

In the outbreak of October 28 three facts suggest that Staphylococci were the offending organisms: (1) the presence of hemolytic Staphylococci in the cooked chicken; (2) the rapid onset of symptoms, after partaking of the food; (3) the absence of fatalities.

The following additional bacteriologic studies were carried out:

1. Guinea pigs were inoculated with saline filtrates of ground samples of the suspected foods and also of raw chicken liver. The former gave no reaction. The latter caused death but so also did raw beef liver.

2. Bacteriologic studies of nine diarrheal stools of those suffering from the disturbance revealed neither paratyphoid organisms nor Staphylococci. One staff member who suffered from this disturbance, however, after recovery returned to the hospital a week later with symptoms of diarrhea and with large numbers of hemolytic Staphylococcus aureus in his stools.

3. Bacteriologic studies of the hospital kitchen revealed that it was in splendid sanitary shape. Studies of food handlers and others not connected with the kitchen revealed that hemolytic Staphylococci are common inhabitants under the fingernails. No members of the paratyphoid group of organisms were found in any instance and therefore no attempt was made to search for them in the stools of the kitchen personnel.

4. Bacteriologic studies of chicken salad, prepared under conditions similar to those of the original salad, revealed in several instances the presence of hemolytic Staphylococcus aureus, but in no instance members of the paratyphoid group.

5. From the same lot of raw chicken originally used in the preparation of the chicken salad samples were cooked and eaten by three persons without ill effects. The hypothesis that the raw chicken might have been "spoiled" was therefore ruled out.

6. Anaerobic cultures from suspected foods revealed the presence of *B. welchii* in practically all cases. It is questionable, however, whether this organism can be associated with the food disturbance.

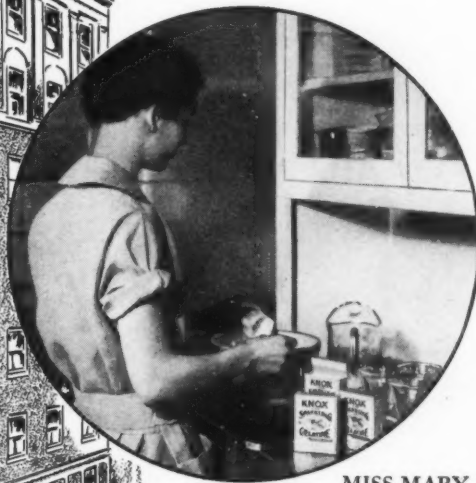
7. Staphylococcic toxin broth made with Staphylococci found in the salad served October 28 was inoculated intravenously in rabbits. None of the rabbits died from the broth that had been incubated for forty-eight hours, but a similar broth incubated seven days proved more toxic, 15 cc. causing death and 10 cc. prostration. There seems to be a difference of opinion among authorities as to the toxic action of such a filtrate in rabbits.

Epidemiologic Considerations

Assuming that we are dealing in all probability with the hemolytic Staphylococcus aureus as the causative agent of the disturbance of October 28, there still remain several questions to be answered. For example, of the 335 staff members who ate the chicken salad, why did only 231 show

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Miss Gladys Cavanagh, Chief of Dietetics of the Park East Hospital, New York City, says: "For a large number of our patients the doctors order a soft or liquid diet. In these cases I find that plain, unflavored gelatine comes in so handy in the preparation of meals. I use gelatine in broths, consommés, soups and salads, and find that it helps add variety and nourishment to the regular regimen."



MISS MARY REVELL,
Dietitian



THE PARK EAST HOSPITAL,
New York City

Here is one of Miss Cavanagh's favorite salad recipes:

JELLIED CRAB MEAT SALAD

- To one tablespoon granulated gelatine add one-fourth cupful cold water—let stand five minutes—add one and one-half cupfuls hot chicken broth and stir until dissolved. Cool. When it begins to thicken add one-half cupful diced celery, one-half cupful peas, one cupful crab meat and two tablespoonfuls chopped olives—mix thoroughly. Fill cold wet individual molds and chill. Serve on lettuce with mayonnaise.

Gelatine may be used freely in liquid or soft diets because it is one of the most easily assimilated forms of protein. Be sure to use a pure U.S.P. gelatine or better. Knox Gelatine is free from all pathogenic gas, or acid-forming bacteria. It is as carefully made and supervised as an ampule solution.

Knox Gelatine contains no carbohydrates, and may be flavored to suit individual needs. It is a valuable adjunct in the feeding of convalescent, tubercular, post-operative, diabetic, and chronically ill cases, and of patients to whom high protein diet is desirable.

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symptoms of illness? Were one-third of the staff immune to the staphylococcic toxin? All indications are that no immunity exists to staphylococcic toxin connected with food poisoning. Furthermore, what are the conditions that caused the Staphylococci to get into the food and produce the toxin? To answer these questions, it will be necessary to trace the various steps from the time when the chicken was cooked on Saturday until it was served as salad Sunday evening.

How the Food Was Handled

As reported by Miss MacLachlan, the chief dietitian, 350 pounds of fowl cut in halves were delivered to the main kitchen at 10 a.m., October 27. The cooking was completed at 1:30 p.m., the broth run off and replaced with cold water to hasten the cooling of the cooked chicken. Two men picked the chicken from the bones. The deboned chicken was placed in two nine-gallon kettles and kept at room temperature until 5 p.m. to permit cooling, after which it was placed in the refrigerator (44° to 48° F.).

About 9 a.m. the next morning the chicken was taken out of the ice box and was cut and diced. This took about one hour. A portion of the diced chicken was used for the preparation of creamed chicken. This was steamed for fifteen minutes at 5 pounds pressure before serving for the noon meal. The chicken for the salad was ready for the salad man at 10 a.m. He added the diced celery and green peppers to the chicken and put it in the refrigerator at 10:15. This was taken out of the refrigerator at 3 p.m. The chicken was then mixed with freshly prepared mayonnaise and was divided into two lots. One lot of salad consisting of 3.5 gallons was sent to the staff kitchen, and the other lot, of 12 gallons, was sent to the nurses' cafeteria. The kettle of salad sent to the staff kitchen was placed immediately in a refrigerator, and the one sent to the nurses' cafeteria was left in the pantry.

It would appear from this outline that the chicken was exposed on three different occasions to room temperature, and it is probable that the Staphylococci gained a foothold during this exposure. In addition, in view of the large quantity of chicken used, it is likely that even when kept in the refrigerator, the cold did not permeate the central portion of the food for many hours, thus permitting bacterial growth to continue in that portion. This explanation helps to make clear why some persons showed marked symptoms and others, light or no symptoms. The extent of the symptoms undoubtedly depended on the amount of toxin present in the particular portion of salad eaten.

There is another aspect to the exposure of

chicken as compared with exposure of, let us say, cuts of beef to bacteria. Deboned chicken consists of small pieces. The surface exposure is thus relatively large, which in turn is likely to enhance bacterial contamination. It may be, indeed, that chicken furnishes a more favorable medium for bacterial growth than other meats.

Of interest is the fact that the creamed chicken served to the patients at noon was evidently free from staphylococcic toxin, as none of the patients suffered from symptoms of food poisoning. It may be that no organisms gained a foothold in this lot of chicken or that the steaming under 5 pounds pressure destroyed any toxin that might have been present. The effect of heat on staphylococcic toxin is not fully established. There is little question, however, that heating under pressure would markedly reduce the potency of this toxin.

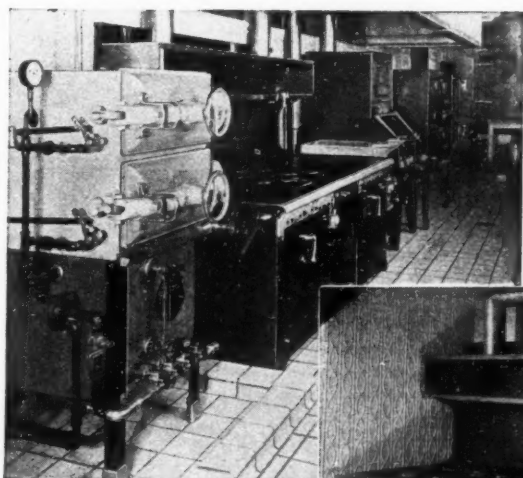
As to the conditions that enable Staphylococci to get into food, it would seem that these conditions are almost unavoidable. Staphylococci are apparently common inhabitants under our finger nails and are practically ever present on the skin. These organisms are therefore bound to land on food. Yet their numbers can undoubtedly be reduced to a minimum.

Cleanliness Must Be the Watchword

Food handlers must fully appreciate that the health of large groups of people may be affected should they permit lapses in personal cleanliness. It is believed desirable to have available within the kitchen a specially constructed washstand with fluid soap and other essentials for thorough cleansing of the hands, with the regulation that all workers must scrub their hands at this washstand before they begin to handle food. A washstand of this type should help to establish the habit of thorough hand cleansing among food handlers and should bring to light the isolated food handler who is prone to be careless with regard to cleanliness. Recognizing that such carelessness might lead to food disturbances, the food handlers themselves would be led to discipline one another in this respect.

Next in importance to reducing the numbers of Staphylococci in food to a minimum, is to prevent their growth in food. This step can be accomplished by the proper refrigeration of perishable food in adequately controlled refrigerators. When, for example, a large bulk of food is to be refrigerated, it should be divided into portions small enough to assure rapid chilling. The placing of a large quantity of food in one container in the refrigerator might mean that it will take hours before the cold will permeate the central portion, thus allowing bacterial growth.

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complete details.

DETROIT-MICHIGAN STOVE CO.
Detroit, Michigan

April Breakfast and Supper Menus*

By HELEN B. ANDERSON

Head Dietitian, The Scripps Metabolic Clinic, La Jolla, San Diego, Calif.

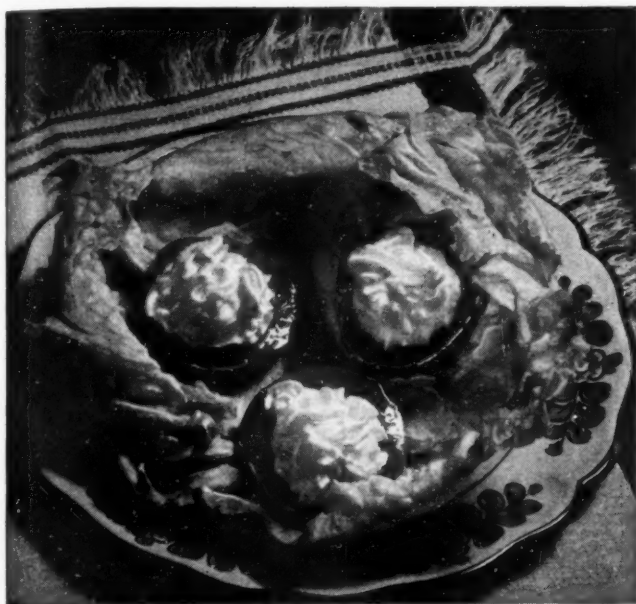
BREAKFAST

SUPPER

Day	Fruit	Main Dish	Appetizer or Soup	Main Dish	Potatoes or Substitute	Vegetable or Salad	Dessert
1.	Apricots	Scrambled Egg With Bacon	Cream of Tomato Soup	Meat Loaf, Mushroom Sauce	Sweet Potatoes	Cranberry Salad	Caramel Cake
2.	Grapefruit	Creamed Chipped Beef	Cheese-Olive Canapé	Rich Clam Chowder		Carrots, Parsley Butter	Pineapple
3.	Applesauce	Baked Egg in Tomato Sauce	Lamb Broth	Creamed Chicken on Biscuit		Green Vegetable Salad	Spiced Peaches
4.	Orange	Codfish Balls	Stuffed Celery	Hot Roast Beef Sandwich		Baked Winter Squash	Caramel Custard
5.	Prunes	French Omelet	Tomato Consommé	Asparagus, Cheese Sauce With Bacon	Toast Points	Avocado Salad	Green Gage Plums
6.	Grapefruit Juice	Creamed Ham	Oyster Cocktail	Stuffed Pepper	Baked Potatoes	Harvard Beets	Applesauce
7.	Rhubarb	Poached Egg on Toast	Cream of Spinach Soup	Cheese Soufflé	Lima Beans	Waldorf Salad	Fruit Gelatin
8.	Orange Juice	Potato Cheese Puff	Minestrone Soup	Creamed Crab	Noodle Ring	Lettuce Salad	Grapefruit
9.	Baked Apple	Small Pork Sausage	Gingerale Cocktail	Baked Stuffed Tomato	Creamed Hominy	Shrimp Salad	Figs
10.	Pineapple Juice	Creamed Finnan Haddie	Avocado Cocktail	Corn Custard		Grated Carrot Salad	Baked Pears
11.	Figs	Small Hamburg Balls, Brown Sauce	Mint Aspic	Lamb Chops	Rice Bread	Celery and Olives	Prune Whip
12.	Tomato Juice	Soft Cooked Eggs	Clam Bisque	Macaroni and Cheese		Lime Gelatin With Cucumber	Melba Peaches
13.	Stewed Raisins	Broiled Ham	Grape Cider Punch	Jellied Tongue	Peas in Cream		Jelly Roll
14.	Orange	French Toast	Cream of Celery Soup	Sardines	Stuffed Potatoes	Pear and Cottage Cheese Salad	Ice Box Cookies
15.	Cooked Fresh Dates	Smothered Kidney With Bacon	Chicken Soup With Noodles	Ham Timbales		Gingerale Fruit Salad	Cheese and Crackers
16.	Grapefruit and Orange Juice	Egg Cutlet With Toast Points	Bouillon With Barley	Casserole of Belgian Hare		Red Cherry Salad	Gingerbread
17.	Baked Banana	Kipperd Herring	Cream Cheese Triangles	Corn With Pimiento		Deviled Egg Salad	Pears
18.	Compote of Dried Fruits	Scrambled Brains	Hot Tomato Juice	Scallops	Potato Puff	Asparagus Salad	Fruit Syllabub
19.	Fried Apples	Creamed Mushrooms on Toast	Vegetable Soup	Spinach Soufflé		Orange Coconut Salad	Apricots
20.	Prune Juice	Tomato Omelet	Italian Lettuce Soup	Escalloped Oysters		Pineapple Surprise Salad	Sour Cream Cookies
21.	Strawberries	Waffles	Roquefort Canapé	Creamed Sweetbreads	Rice Ring	Cooked Fruit Salad	Sponge Cake
22.	Green Gage Plums	Parsley Creamed Eggs	Cream of Pea Soup	Meat Croquettes	Mushroom Sauce	Escalloped Tomatoes	Deep Apple Pie
23.	Baked Apples	Puffy Omelet	Mushroom Bisque	Chicken Salad	Baked Yams		Damson Plums
24.	Grapefruit	Corned Beef Hash	Fruit Soup	Celery and Tuna Soufflé		Banana Sandwich Salad	Caramel Cookies
25.	Baked Pear	French Pancake	Cream of Corn Soup	Mock Birds	Dressing	Molded Beet Salad	Fruit Salpicon
26.	Orange and Dates	Coddled Eggs	Grapejuice Cocktail	Polenta, Tomato Sauce		Artichoke Heart Salad	Cinnamon Apples
27.	Fresh Pineapple	Pork Sausage, Country Gravy	Consommé Royal	Chop Suey	Rice		Orange Marmalade Cake
28.	Cantaloupe	Broiled Bacon		Assorted Cold Meats	Potatoes au Gratin	Tomato Perfection Salad	Royal Ann Cherries
29.	Damson Plum Sauce	Poached Egg, Cheese Sauce	Spring Fruit Cocktail	Toasted Turkey Sandwich		Romaine Salad, Russian Dressing	Lemon Sponge
30.	Tomato Juice	Calves' Liver, Swedish	Cream of Potato Soup	Salmon Loaf	Egg Sauce	Grapefruit, French Dressing	Raspberries

*Cereals, breads and beverages are omitted from the breakfast menus because of space limitations. Recipes for any of the foregoing dishes will be supplied on request by Anna E. Boller, Central Free Dispensary, Rush Medical College, Chicago.

● For each serving place three canned apricot halves in a lettuce cup. Top generously with "Philadelphia" Brand Cream Cheese that has been softened with a little milk and pressed through a pastry tube.



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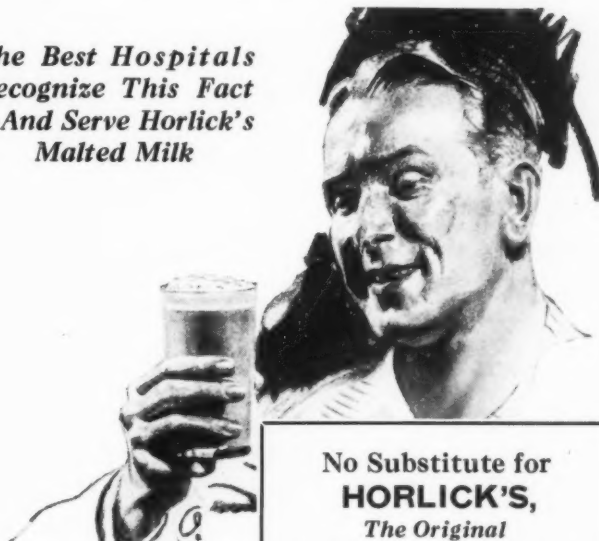


Name.....
Hospital.....
City..... State.....



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IT'S an important thing—a matter that hospital managements must reckon with. After all, patients *do* remember their hospital diet. Often remember it longer than anything else. And it's only natural that they should. To the patient, cut off from the outside world, his normal activities curtailed, the daily meal is an event. Something to look forward to with pleasure, or something to dread. And the memory of those menus sticks with him long after he has quit the hospital. He is apt to forget more important things—judge a hospital on its menus *alone*.

The best hospitals appreciate this eccentricity and make every effort to include pleasant foods in the diet. You'll find them serving Horlick's Malted Milk in these hospitals. They feel their patients are entitled to the highest quality in malted milk, as they are in meats, butter and eggs.

Because it is an easily digested sustaining food-drink Horlick's is excellent nourishment for the delicate or impaired system. More than that, Horlick's is delicious, refreshing. Patients love its rich, full flavor. They do not tire of Horlick's, no matter how regularly it is included in the diet.

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NEWS OF THE MONTH

Compulsory Health Insurance Condemned by A. M. A.—Considered by Five States

By ALDEN B. MILLS

Managing Editor, The MODERN HOSPITAL

Health insurance legislation was introduced into five state legislatures last month and bills are now in preparation in several other states. The American Medical Association, however, at a special meeting of the house of delegates in Chicago on February 15 and 16 voted to oppose all forms of compulsory health insurance but to lend encouragement to voluntary health insurance plans, particularly if under the control of county medical societies.

A bill for compulsory health insurance drawn by the American Association for Social Security and frequently called the Epstein Bill, after Abraham Epstein, executive secretary of the association, was introduced in the legislatures of New York State, Massachusetts, Nebraska and California. Other bills for health insurance, one for a voluntary system and another for a compulsory system, were introduced in Pennsylvania. A bill for compulsory health insurance was also in course of preparation by governmental authorities for introduction in British Columbia.

Government Assistance Probable

Meanwhile President Roosevelt's committee on economic security was putting the finishing touches on its report on health insurance. This report will doubtless be the most important single document on the subject yet made public. The only definite intimation available as to the contents of the report is the list of eleven principles adopted by the committee which was published in the February issue of *The MODERN HOSPITAL*. Beyond this, however, it is pretty generally believed by those in a position to know that the report will recommend federal government assistance in meeting the cost of health insurance in those states adopting a system of compulsory health insurance which meets certain minimum standards. It is anticipated that some suggestion will be presented for giving more assistance to the poorer sections of the country than is to be given to the wealthier.

The advisory medical, dental, hospital and public health committees have taken an active part in the work of the President's committee and it is expected that one effect of their participation will be that the federal government will include among its minimum standards some assurance that trained professional opinion will be sought on all questions of a professional nature. This point was included in the list of eleven principles made public last month.

What Epstein Bill Provides

It is anticipated that no general nationwide plan will be proposed, but rather that the federal government will assist with funds and information those states which wish to provide health insurance for their people. It has been intimated that cash benefits for time lost by illness might be incorporated with unemployment insurance rather than with health insurance.

The so-called Epstein Bill, which has been opposed by the American Medical Association, covers cash benefits as well as medical service benefits. It provides for administration by a health insurance commission of five members, with the commissioner of health insurance as one, the state health commissioner another, and the other three appointments made by the governor with the advice and consent of the senate. One of the three shall represent employers, one employees and one the professions. The appointments are to be for six-year overlapping terms. The commission is given full and final authority over all health insurance matters in the state. State advisory councils are provided, one a general council representing equally the employers, the employees and the professions and the other a council representing the professions only.

District and local offices are provided which reproduce on a smaller scale the arrangement proposed for the state, including similar advisory councils. Free choice of physician and of hospital is given, subject to proper

performance of function. In addition to the provisions for compulsory insurance of all employees earning less than \$60 a week, the act provides that those earning more than that amount or otherwise exempted from the act may take out voluntary insurance. The act does not apply in establishments employing less than three workers or to those employed in agricultural or domestic service.

The special meeting of the house of delegates of the American Medical Association, the first such meeting since the World War, took a strong stand against compulsory health insurance. The gist of the action was contained in the paragraph reading as follows: "The House of Delegates of the American Medical Association reaffirms its opposition to all forms of compulsory sickness insurance whether administered by the federal government, the governments of the individual states or by any individual industry, community or similar body. It reaffirms, also, its encouragement to local medical organizations to establish plans for the provision of adequate medical service for all the people, adjusted to present economic conditions, by voluntary budgeting to meet the costs of illness."

The report declares that there is no model plan which is a cure-all, but requests the Bureau of Medical Economics of the association to develop by June "model skeleton plans adapted to the needs of populations of various types," mentioning specifically rural, urban and industrial populations.

The report emphasizes "particularly the necessity for separate provision for hospital facilities and the physicians' services" in the establishment of voluntary health insurance plans. This appears to be, by implication, an endorsement of group hospitalization.

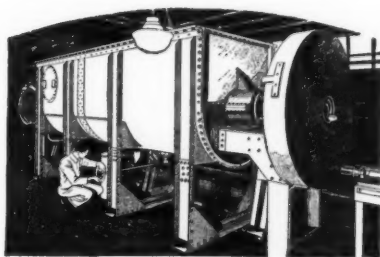
Fire Destroys Kentucky Hospital

When the William Mason Memorial Hospital, Murray, Ky., was destroyed by fire on February 18, the staff physicians and nurses carried the forty-two patients of the hospital to safety. The damage was estimated at \$150,000. Prompt action in organizing the nurses and employees when the fire was discovered is attributed as the reason for the successful rescue work.

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New England Hospital Association Considers Administrative Problems

With registration figures passing the 200 mark by a considerable margin, and added interest lent the proceedings through the introduction of exhibits, the New England Hospital Association established new records at its thirteenth annual meeting held in Boston. The program for the three-day session, which was opened on February 7 and closed on February 9, was concentrated for the most part on the practical side of hospital administration with particular emphasis upon problems of small institutions.

Administration as applied particularly to the small hospital was outlined by Dr. George S. Young, superintendent, Kennebec Valley Hospital, Skowhegan, Maine, the opening speaker. Admitting procedures were discussed later by M. Ellen McIntyre, R.N., superintendent, Meriden Hospital, Meriden, Conn., who described the admitting office as the chief link connecting the hospital with the outside world, and its most important responsibility that of introducing the patient to the new environment. She stressed the importance of having the proper person as the admitting officer, the right atmosphere and attitude, also the necessary space and privacy. "It is important," Miss McIntyre emphasized, "when the patient is admitted that the hospital receive some assurance as to who will pay the bill."

One Session Devoted to Nursing

In addition to an entire session devoted to the subject of nursing, the opening day's program also included a talk by Marjory Stimson, R.N., assistant professor of Public Health Nursing, Simmons College, Boston, on what the community expects of nurses in public health. Presiding at the first day's sessions were Dr. Joelle C. Hiebert, Central Maine General Hospital, Lewiston, Maine, and Dr. W. Franklin Wood, MacLean Hospital, Waverley, Mass.

Responsibilities resting with hospital administrators in meeting present day exigencies was touched upon by J. Dewey Lutes, director-general, American College of Hospital Administrators, Chicago, in his talk on "The Challenge of Advanced Science to Hospital Administration."

The fact that the small hospital can seldom interest the full-time services of a pathologist was stressed by Dr. Fred D. Jones, pathologist at Springfield Hospital, Springfield, as well as

at other institutions. Doctor Jones also stated that few students are entering pathology because of its small financial return. He went on to explain how the small hospital can render efficient service of this kind through a part-time arrangement with a pathologist in good standing in conjunction with the services of the hospital technician.

Eight-Hour Day Proves Popular

Among those contributing to the session on nursing was Mrs. Delight S. Jones, R.N., president, Massachusetts State Nurses Association. Mrs. Jones in discussing eight-hour special nursing indicated this had ceased to be in its trial stage and that it has been proved to work in actual practice in over twenty-six states, 300 hospitals and affecting 25,000 nurses. Nell A. Hostetler, A.B., R.N., superintendent of nurses and principal of school of nurses, Newton Hospital, Newton, Mass., augmented Mrs. Jones' remarks by stressing the greater health and happiness assured the nurse by the eight-hour day and revealed the fact that it had been found that many nurses who had been ill and unable to undertake the longer hours of duty had now been able to get back to work. The need for postgraduate courses in nursing education and how this need is being answered was described by Helen Wood, R.N., director, school of nursing, Simmons College, Boston. Dr. Henry M. Pollock, medical director, Massachusetts Memorial Hospitals, Boston, presided at this session.

The need for greater education on the part of the public as to the work being done by hospitals was emphasized by Dr. Allan Craig, medical director, Charlotte Hungerford Hospital, Torrington, Conn., in his talk on proper hospital publicity. This was likewise emphasized by Robert Jolly, president, American Hospital Association. Among other speakers of prominence who traveled from some distance to join the New England group was Dr. Malcolm T. MacEachern, American College of Surgeons. Dr. Lewis A. Sexton, Hartford Hospital, Hartford, Conn., presided at the session.

In the course of round table discussions which were dispersed among the scheduled programs was the matter of vacations and sick leave. It was found to be the general custom

to provide the graduate staff with four weeks' vacation with pay and two weeks' sick leave. Students generally received three weeks' vacation with pay. It was revealed that few have made any change in vacation rules during the depression period.

Luncheons planned for each day of the convention added greatly to the interest. Close attention was given to suggestions made by Lieutenant-Colonel Paul G. Kirk, commissioner of public safety, Commonwealth of Massachusetts, on how the hospital can cooperate with the police. Colonel Kirk pointed to the advantages of hospital authorities providing full information on any peculiarities on the part of patients suffering from amnesia which might aid in identification.

Those presiding at the luncheon meetings were Dr. W. Franklin Wood, Dr. Joseph B. Howland, superintendent, Peter Bent Brigham Hospital, Boston, and Dr. Albert W. Buck, New Haven Hospital, New Haven, Conn. Dr. Stephen S. Brown, Maine General Hospital, Portland, Maine, presided at the annual dinner.

Doctor Brown was elected president of the association for the new term with Lucy B. Abbott serving as vice-president and Dr. Albert G. Engelbach, Massachusetts General Hospital, Boston, again in the post of secretary and treasurer.

Some attention was given to psychology tests given students entering the school of nursing.

Miss Rottman Resigns From Nursing Post and Will Marry

Marian Rottman, principal of the Bellevue School of Nursing of the Department of Hospitals, New York City, has resigned from this post which she has occupied since 1929. In connection with her withdrawal from professional life, it is revealed that Miss Rottman will be married to Dr. Mark L. Fleming, general medical superintendent of the Department of Hospitals.

Miss Rottman graduated from Bellevue in 1912, following which she worked as assistant in the school of nursing. Later she became associated with the Robert Long Hospital in Indianapolis and the Johnston Emergency Hospital and the Mt. Sinai Hospital of Milwaukee.

Miss Rottman will be succeeded by Irene Robertson who has been assistant director of the division of nursing of the Department of Hospitals for the past four years.

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Giant X-Ray Tank Installed at Columbia Medical Center

A seven-ton tank, cylindrical in shape, nearly four feet high and about four and a half feet long, capable of generating x-rays from 500,000 to 1,000,000 volts, will be installed in a special building of the Presbyterian Hospital at Columbia Medical Center, New York City, for the use of Crocker Institute of Cancer Research of Columbia University.

This tank, the second of its kind to be built, will be suspended from steel beams in a room 25 feet long and 13 feet wide. It is so constructed that six patients may be treated at the same time.

The first tank is in use at the University of California where David H. Sloan, whose research developed this type of x-ray apparatus, is located.

Complete Studies in Paris

The hospital division of the Medical College of Virginia in its training of dietitians sends each student, after nine months' work in Richmond, to Paris, France, for a six months' course at the American Hospital of Paris, of which Dr. J. L. McElroy is superintendent. Doctor McElroy was at one time superintendent of the hospitals of the Medical College of Virginia, a position now filled by Dr. Lewis E. Jarrett.

To Hold Annual Institute

The Annual Institute for Hospital Administrators will be held on the campus of the University of Chicago, from September 12 to 25, under the direction of the American Hospital Association. Courses of study are being arranged, through the cooperation of the University of Chicago and the Chicago Hospital Association, for first-year and advanced students.

New Henrotin Hospital Is Formally Opened

The new Henrotin Hospital, Chicago, was opened with appropriate ceremonies on February 16. Over a thousand visitors inspected the hospital. The capacity of the new building is 104 beds and twenty bassinets. It cost approximately \$600,000. An unusual feature of the building is provision for about twelve physicians' offices for diagnostic purposes. One section of the building is arranged so that air conditioning machinery can be quickly in-

stalled and with little additional expense the entire structure could have conditioned air.

The new structure occupies the back of the plot of ground held by the hospital on Chicago's near north side. As soon as the new building is occupied the old one will be wrecked.

A special feature of the hospital is the unusual use of color. All the colors are harmoniously blended and are matched by the furnishings which are very plain and simple in design. Holabird and Root and Berlin and Swern, both of Chicago, were the architects.

Two New Units Added

In connection with the ceremonies marking the fifty-third anniversary of the Brooklyn Home for Consumptives, Brooklyn, New York, a pneumothorax clinic for the treatment of tuberculosis and a new surgical unit for advanced cases of the disease were formally opened. The clinic is on the first floor and its services will be available to outside patients as well as to the 112 now living in the hospital. Equipment for the clinic and surgical unit consists of an operating room, anesthesia room, preparation room and a waiting room.

Methodists Discuss Nursing Problems at February Meeting in Chicago

A thorough discussion of the nursing situation was a special feature of the meeting of the National Association of Methodist Hospitals, Homes and Deaconess Work held in Chicago on February 13 and 14. Rev. Albert Z. Mann, president of the Methodist Deaconess Association of Springfield, Mass., was elected president of the national association and Guy M. Hanner, Beth-El Hospital, Colorado Springs, Colo., was reelected secretary.

A hopeful note regarding the future of hospitals under the health insurance legislation that is being prepared in Washington was sounded by Rev. Charles C. Jarrell, president, American Protestant Hospital Association, Atlanta, Ga. As a member of the hospital advisory board, Mr. Jarrell reported in broad outline the trend of the thinking of that board and of the technical research staff of President Roosevelt's committee on economic security.

Mr. Jarrell said that the work of the Committee on the Costs of Medical Care had undoubtedly paved the way for the President's committee and largely influenced its thinking. Mr. Jarrell called on the Methodist hospitals to do their full share of social work in their respective communities.

Better supervision of student nurses and a broader basic scientific training were suggested by Adda Eldredge, executive director of the placement service of the Midwest Nurses' Bureau, Chicago, speaking on the subject of "Quality Nursing." She emphasized that quality nursing is costly but that it is imperative to proper care of patients.

A succinct summary of the findings and recommendations of the Commit-

tee on the Grading of Nursing Schools was presented by Mrs. Ada R. Crocker, executive secretary, Illinois State Nurses' Association. In the discussion of the two nursing papers, Paul Fesler, superintendent, Wesley Memorial Hospital, Chicago, declared that the time had come when good nursing education must be offered by the Methodist hospitals. He suggested that the various Methodist hospitals group themselves together to support a few good nursing schools rather than a larger number of mediocre schools.

E. Muriel Anscombe, superintendent, Jewish Hospital, St. Louis, presented a study of nursing service under the title, "Distribution of Nursing Facilities." In this she declared that careful cost studies had shown her that it actually cost two cents more per hour for service by student nurses than by graduates.

Other papers on hospital subjects were "What Contributions Can We Make in the Face of the Growing Demand That Hospitalization Be Placed Within the Reach of the Lower Middle Class and Also Made Available to the Poor Without Charge?" by Dr. C. S. Woods, superintendent, St. Luke's Hospital, Cleveland; "The Relation of a Balanced Operating Budget Program to the Future of Our Hospitals," by Dr. O. J. Carder, superintendent, Missouri Methodist Hospital, St. Joseph Mo.; "How Shall We Handle Our Present Indebtedness?" by Dr. C. C. Marshall, superintendent, Methodist Episcopal Hospital, Brooklyn, N. Y., and "Present Day Needs of Financing Hospitals," by Rev. J. P. Van Horn, superintendent, St. Luke's Hospital, Cedar Rapids, Iowa.

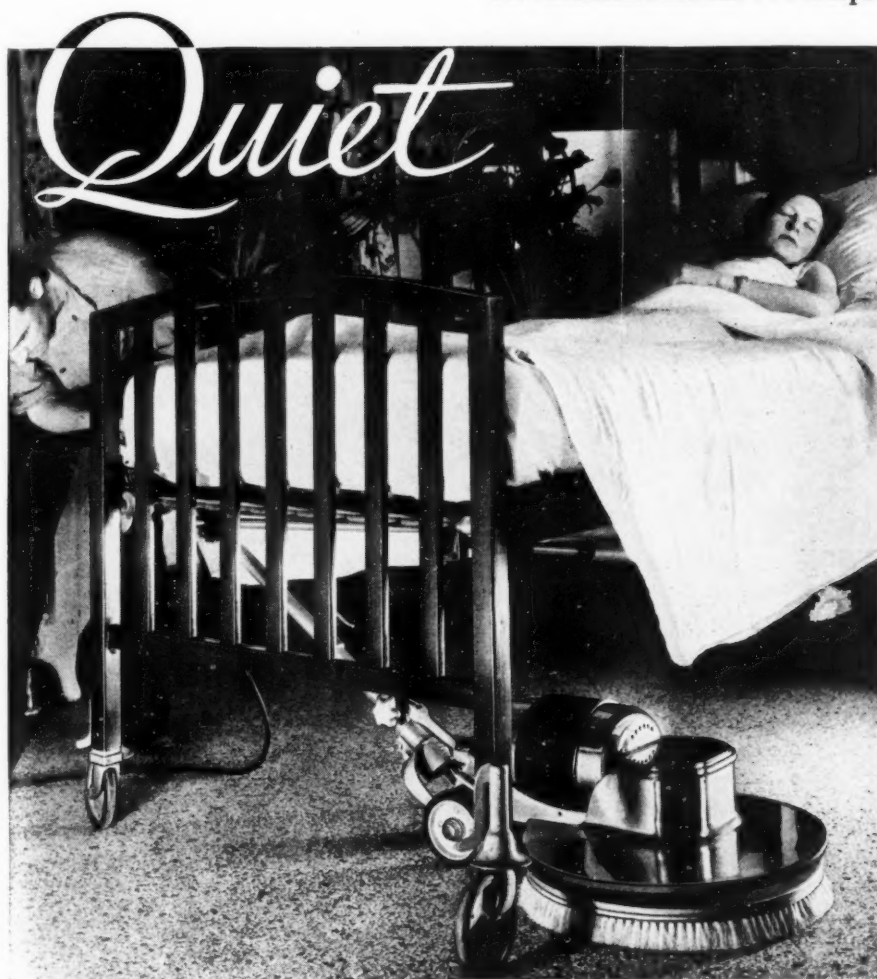
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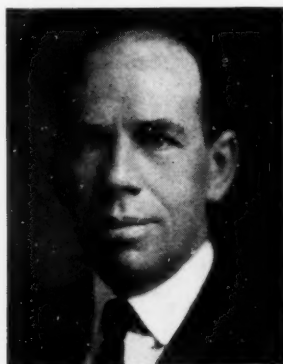
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Doctor Faxon Goes to Massachusetts General

The appointment of Dr. Nathaniel W. Faxon, medical director of Strong Memorial Hospital, Rochester, N. Y., to succeed Dr. George H. Bigelow as director of Massachusetts General Hospital, Boston, has been announced.

Doctor Faxon, a graduate of Harvard University, was at one time assistant director of the hospital to which he will return as head. He has been director of Strong Memorial Hos-



pital since 1922. He has been a trustee of the American Hospital Association for many years and during the year 1933-34 he filled the office of president of the association. He will

take up his duties at Massachusetts General when his successor at Strong Memorial Hospital has been appointed. He was born in 1880 and is the son of Dr. William Otis Faxon.

Doctor Bigelow whose place Doctor Faxon will take disappeared December 4 and has not been heard of since. He is believed by many to be a victim of amnesia.

Hurley Hospital Plans Erection of Two Wings

A committee of three members of the board of managers and two physicians on the staff of Hurley Hospital, Flint, Mich., will undertake plans to obtain PWA funds for an addition to the hospital.

Funds to erect at least one and possibly two new wings to the institution will be sought. It was pointed out that additions have become necessary both through crowding of certain wards and because the psychopathic patients, now housed in a remaining building of the original hospital, are in danger from fires.

Other needs for the new addition are an enlarged tuberculosis ward, an isolation ward and new quarters for interns who are now crowded together in the basement of the hospital.

Symposium at Medical Congress Deals With Standing of Anesthetists and Radiologists

So far as the hospital administrator is concerned the meat of the thirty-first annual Congress on Medical Education, Hospitals and Licensure, held February 18-19 in Chicago, under the auspices of the American Medical Association, was the symposium on "Should the Radiologist, the Pathologist and the Anesthetist Be Licensed to Practice Medicine?"

The consensus of the nine symposium speakers was that radiologists and pathologists should be physicians. As to the anesthetist, the feeling was that the properly trained and licensed physician-anesthetist would be ideal, but that in the present state of affairs this is not practical.

Dr. F. H. McMechan, Rocky River, Ohio, secretary of the International Anesthesia Research Society, contended that physicians alone should administer anesthetics. Dr. Karl Meyer, medical director, Cook County Hospital, Chicago, held the opinion that as far as the surgeon is concerned the

anesthetist need not be a physician, although such a state of affairs might be ideal. The administration of anesthetics is not an interpretative science, he explained.

The idea that any practicing physician can give an anesthetic satisfactorily should not be entertained, Dr. Arthur C. Bachmeyer, director of clinics, University of Chicago, maintained. The ideal, he agreed, would be to have every anesthetic administered by a licensed physician especially trained for the work, but this is out of the question at present, because the general medical course and the internship furnish only meager glimpses of anesthesia, in his opinion.

Dr. James P. Simonds, professor of pathology, Northwestern University Medical School, offered a few suggestions as to how the pathologist might be made more of a consultant. Practicing physicians, he declared, have a tendency to treat the pathologist as a technician with a limited knowledge

of disease, whereas he should know more about processes of disease than the physician in active practice.

In radiology, although well trained technicians can take x-ray pictures, their work has little value unless it is interpreted by someone who knows medicine thoroughly, the speakers agreed. The application of radiology in treatment, they believe, demands the finest judgment.

Dr. Byrl R. Kirklin, Rochester, Minn., secretary of the American Board of Radiology, which has already certified 400 radiologists, considered at length the arrangements between hospitals and radiologists for management of x-ray departments. Many hospitals, he believes, are taking advantage of radiologists by using the profits of the x-ray department as a source of hospital income and not allowing the staff radiologist fair compensation.

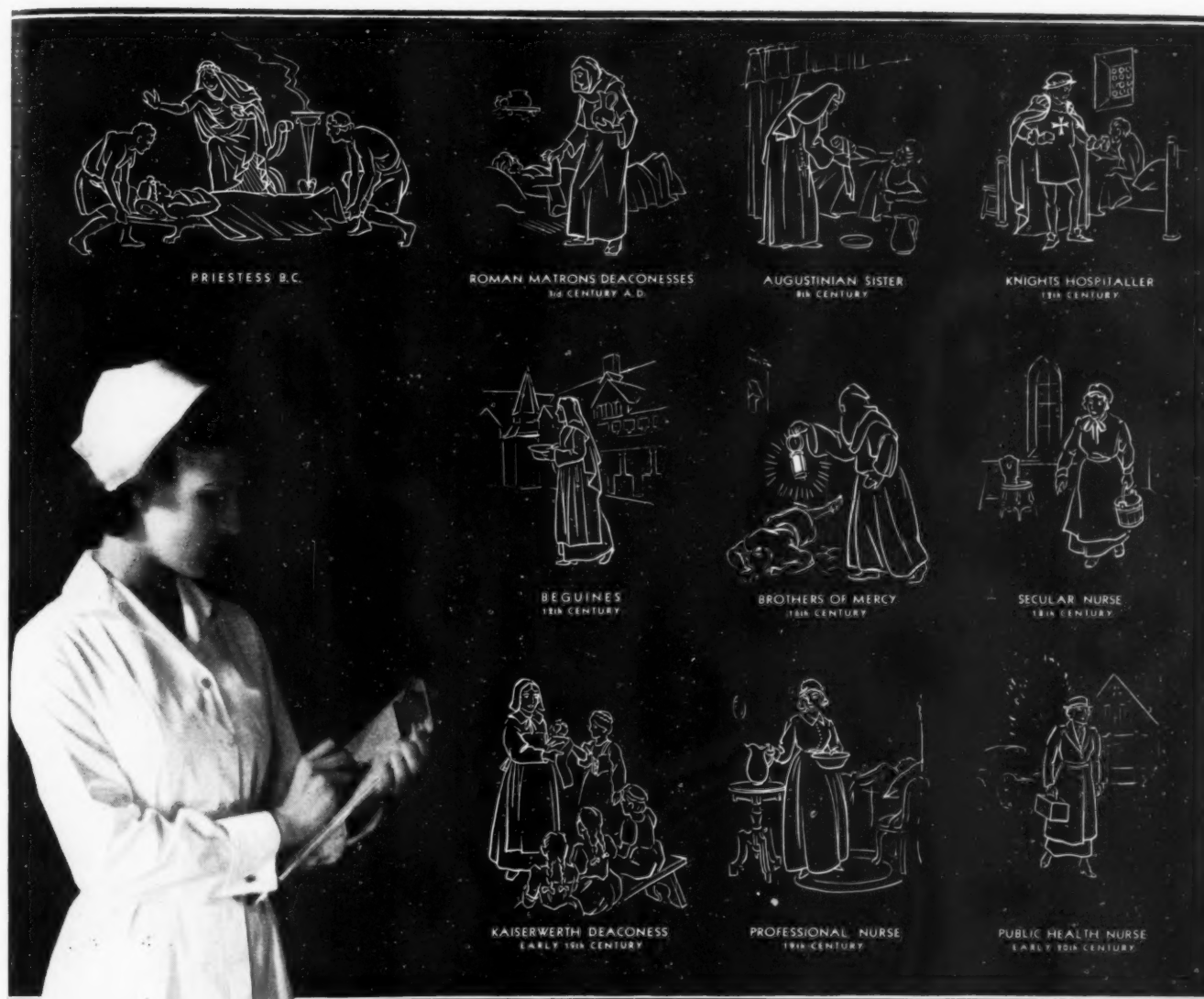
Dr. Kirklin's Plan

Doctor Kirklin outlined a plan of his own. Essentially its features are: Place the x-ray department under the unhampered control of the radiologist; out of the revenue pay current expenses, give the hospital a fair return on its investment and acknowledge the right of the radiologist to whatever remains, holding him duly responsible for every radiologic diagnosis made in the hospital.

Dr. Charles Gordon Heyd, New York City, in discussing graduate medical education of the future, declared that the voluntary hospital system is in the process of breaking down by reason of the inadequacy of funds derived from philanthropic sources and that many hospitals will be salvaged by becoming part of the governmental system.

Because of this fact, Doctor Heyd says, there will be a growth of dispensary practice for which the physician is paid. This will mean a new necessity for continued education of physicians, perhaps mandatory education. When more and more doctors are employed by government agencies, the moderately trained rather than the better trained will take the jobs. These men will have to be reeducated periodically by means of set periods of study at graduate centers. In such a scheme the hospital is the key to graduate teaching.

A plea for general hospitals to admit tuberculous patients was made by Dr. J. Arthur Myers, University of Minnesota. It is poor economy to build more hospitals for the tuberculous, when the disease is decreasing and when 70,000 beds in general hospitals are vacant, he declared.



In hospital history nothing is more significant than the garments that typify the different periods.

The robes of pagan priest and priestess tell the ancient story of oracles and superstition. Rich dress of Roman matrons portrays the birth of social consciousness. Costumes of pious orders illuminate the chapters when society at large shifted its responsibility to the broad shoulders of the Church. Dark days of secular incompetence leave a telltale record in the careless garb of Sarah Gamp. Then garments of striking similarity decorate the pages, developing by quick steps to the modern uniform—attractive, clean cut, purposeful, efficient.

How clearly the wide variety of garments depicts the unrelated programs of the past. Yet all proclaim a common and immortal principle. Until, at last, they tell the glad news of world unison and the attainment of an age-old ideal in a new, distinct profession in which sympathy and science meet.

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Diabetes Association Is Formed in New York

The New York Diabetes Association has been formed in affiliation with the New York Tuberculosis and Health Association to carry on a campaign against diabetes. It is to be financed by a special contribution of \$15,000 made by Lucius N. Littauer.

The new organization will act as a clearing house for the study of diabetes as a health problem, devise measures for its control, assist in the formation of an association of clinics dealing with diabetes, develop graduate instruction for physicians, carry on health education of the general public in matters relating to diabetes, and obtain the provision of insulin for indigent sufferers and nursing service and hospitalization for all who require it.

Mr. Littauer, a manufacturer, has previously contributed large sums for support of public health activities, notably gifts of \$50,000 to Albany Medical College and \$10,000 to New York University for studies on conditions that accompany pneumonia.

Jefferson Hospital Receives \$250,000

A bequest of \$250,000 has been made to Jefferson Medical College and Hospital, Norristown, Pa., under the will of Alba B. Johnson, former president of Baldwin Locomotive Works. Mr. Johnson was president of the hospital.

St. Luke's Benefits by Will

A total bequest of \$1,374,780 was made to St. Luke's Hospital, New York City, in the will of Mrs. Mary Helena Kingsland Tompkins. The institution receives one gift of \$10,000, a \$300,000 trust fund and the residuary estate of \$1,064,780.

Federal Narcotic Farm to Open at Lexington, Ky.

The first federal narcotic farm for the treatment of drug addicts will be opened about the first of May at Lexington, Ky.

This institution, which is under the jurisdiction of the United States Public Health Service, will accommodate 1,000 men. It will be both a treatment and research center. The results of experiments will be passed on to the general public and to the medical profession.

The object of this farm is to rehabilitate the patients, restore them to health and train them to be self-

supporting. The discipline will be that necessary for the safe keeping of patients and the protection of the community. Before the establishment of this institution, drug addiction had been officially regarded as a penal problem, without any attention being paid to the medical, sociologic or economic aspects of this serious problem.

Modernization Goes Forward

Work on the new maternity addition to the Englewood Hospital, Englewood, N. J., is progressing to the point that occupancy is anticipated about the first of March. Changes which have been made during the past few months will bring its facilities up to date, particularly the delivery and labor rooms.

Coming Meetings

Alabama Hospital Association.

Secretary, Dr. A. C. Jackson, Jasper.
Next meeting, Birmingham, March 8.

Hospital Association of Texas.

President, Bryce L. Twitty, Baylor Hospital, Dallas.
Secretary, May Smith, Bradford Memorial Hospital, Dallas.
Next meeting, Marlin, March 22-23.

Ohio Hospital Association.

President, John R. Mannix, University Hospitals, Cleveland.
Executive secretary, A. E. Hardgrove, City Hospital of Akron, Akron.
Next meeting, Columbus, April 2-4.

North Carolina Hospital Association.

President, Newton Fisher, James Walker Memorial Hospital, Wilmington.
Secretary-treasurer, M. E. Winston, Rex Hospital, Raleigh.
Next meeting, Greensboro, April 11-12.

Joint Meeting North Carolina, South Carolina and Virginia Hospital Associations.

Greensboro, N. C., April 11-12.

Iowa Hospital Association.

President, Thomas P. Sharpnack, Broadlawn Hospital, Des Moines.
Secretary, Erwin C. Pohlman, University Hospitals, Iowa City.
Next meeting, Iowa City, April 29-30.

Joint Meeting Illinois, Indiana and Wisconsin Hospital Associations.

Chicago, May 1-3.

International Hospital Association.

Study tour, April 28-May 4.
Next meeting, Rome, Italy, May 19-25.

Arkansas Hospital Association.

President, Msgr. J. P. Fisher, Little Rock.
Secretary, Regina H. Kaplan, Leo N. Levi Memorial Hospital, Hot Springs National Park.
Next meeting, Little Rock, May 7.

Hospital Association of Pennsylvania.

President, Charles A. Gill, Episcopal Hospital, Philadelphia.
Executive secretary, John N. Hatfield, Pennsylvania Hospital, Philadelphia.
Next meeting, Philadelphia, May 8-10.

Michigan Hospital Association.

President, Dr. Warren L. Babcock, Grace Hospital, Detroit.
Secretary, Robert G. Greve, University Hospital, Ann Arbor.
Next meeting, Jackson, May 9-10.

Mississippi Hospital Association.

President, Dr. R. J. Field, Field Memorial Hospital, Centerville.
Secretary, Dr. Leon S. Lippincott, Vicksburg Sanitarium, Vicksburg.
Next meeting, Biloxi, May 13.

Hospital Association of New York State.

President, P. Godfrey Savage, Niagara Falls Memorial Hospital, Niagara Falls.
Executive secretary, Carl P. Wright, General Hospital of Syracuse, Syracuse.
Next meeting, New York City, May 23-24.

National League of Nursing Education.

President, Effie J. Taylor, New Haven, Conn.
Executive secretary, Claribel A. Wheeler, 50 West Fifth Street, New York City.
Next meeting, New York City, June 3-8.

Mid-West Hospital Association.

President, Frank J. Walter, St. Luke's Hospital, Denver.
Executive secretary, Walter J. Grolton, City Hospital No. 1, St. Louis.
Next meeting, Colorado Springs, Colo., June 6-7.

American Medical Association.

President, Dr. Walter L. Bierring, Des Moines, Iowa.
Secretary, Dr. Olin West, 535 North Dearborn Street, Chicago.
Next session, Atlantic City, N. J., June 10-14.

Canadian Medical Association.

President, Dr. J. S. McEachern, Calgary, Alta.
General secretary, Dr. T. C. Routley, 184 College Street, Toronto, Ont.
Next session, Atlantic City, N. J., June 10-14.

Catholic Hospital Association of the U. S. and Canada.

President, Rev. Alphonse M. Schwitalla, S.J., St. Louis.
Executive secretary, M. R. Kneifl, 1402 South Grand Boulevard, St. Louis.
Next meeting, Omaha, Neb., June 17-21.

Minnesota Hospital Association.

President, J. H. Mitchell, Colonial Hospital, Rochester.
Executive secretary, A. M. Calvin, Midway and Mounds Park Hospitals, St. Paul.
Next meeting, Duluth, June 20-21.

Hospital Association of Nova Scotia and Prince Edward Island.

President, Rev. H. G. Wright, Inverness, Nova Scotia.
Secretary, Anne Slattery, Dalhousie University, Halifax, Nova Scotia.
Next meeting, Wolfville, Nova Scotia, June, 1935.

Missouri State Hospital Association.

President, Walter J. Grolton, City Hospital No. 1, St. Louis.
Next meeting, Colorado Springs, Colo., June, 1935.

American Protestant Hospital Association.

President, Dr. Charles C. Jarrell, 405 Wesley Memorial Building, Atlanta, Ga.
Executive secretary, E. E. Hanson, Lutheran Deaconess Home and Hospital, Chicago.
Next meeting, St. Louis, Sept. 27-30.

American College of Hospital Administrators.

President, Robert E. Neff, University of Iowa Hospitals, Iowa City, Iowa.
Director-general, J. Dewey Lutes, Ravenswood Hospital, Chicago.
Next meeting, St. Louis, Sept. 29-30.

American Hospital Association.

President, Robert Jolly, Memorial Hospital, Houston, Tex.
Executive secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.
Next meeting, St. Louis, Sept. 30-Oct. 4.

American College of Surgeons.

President, Dr. Robert B. Greenough, Boston.
Director-general, Dr. Franklin H. Martin, 40 East Erie Street, Chicago.
Next meeting, San Francisco, Oct. 28-Nov. 1.

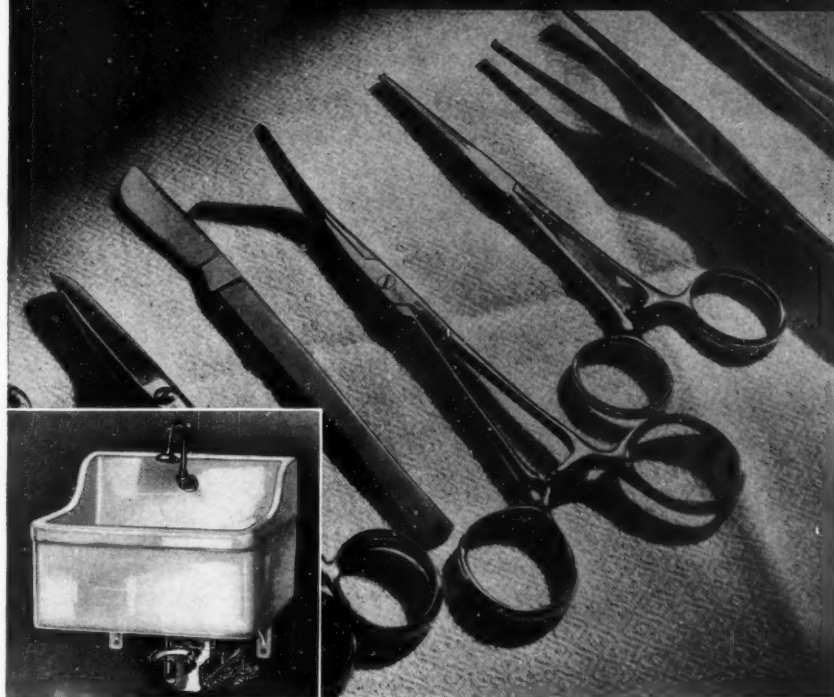
American Dietetic Association.

President, Laura Comstock, Rochester, N. Y.
Business manager, Dorothy I. Lenfest, 185 North Wabash Avenue, Chicago.
Next meeting, Cleveland, October 28-31.

Association of Record Librarians of North America.

President, Edna K. Huffman, St. Luke's Hospital, Davenport, Iowa.
Corresponding secretary, Helen Hays, St. Alexis Hospital, Cleveland.
Next meeting, San Francisco, Oct. 28-Nov. 1.

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Twenty-Two Improvements in Out-Patient Service Suggested in Detroit Survey

A survey of out-patient services in the metropolitan area of Detroit by Dr. Haven Emerson and Dr. Gertrude Sturges was recently made public by the Detroit Council of Social Agencies. In addition to a large body of factual data regarding the clinics, the report discusses the major problems facing them and presents twenty-two recommendations for the improvement of clinic service. Many Detroit clinics are already following these recommendations, the report points out.

The recommendations, in brief, are as follows:

1. Formation within the council of social agencies of an out-patient section of a health council, with a paid secretary. Both the health council and the out-patient section should have representation from the boards of trustees and the administrative and medical staffs of each agency concerned and from the health department.

2. Licensing and supervision of out-patient services by the board of health or other suitable local agency.

3. Affiliation of independent out-patient services with recognized hospitals.

4. Continuation of all existing out-patient departments and the establishment of no new ones except for dental services and service for mental diseases and for service in the northeast district of the city.

5. Provision of a diagnostic service for free and part-pay patients of private physicians.

6. Establishment of out-patient committees of boards of trustees and of medical staffs.

7. Thorough medical examination of each permanent employee when employed and annually thereafter.

8. Centralizing in the hands of one person in each institution of the purchasing of medical, surgical and other supplies for each clinic, with consideration of group purchasing if feasible.

9. Organization of the medical staff of each out-patient service for its own particular work and its inclusion in the staff of the hospital.

10. Approval of the principle of payment of physicians for out-patient services and the adoption of this policy "when necessary funds are available for this purpose."

11. Provision of larger and im-

proved quarters in a few institutions and the correction of crowded conditions in others through an appointment system and other improvements in management and organization. Separation of emergency from out-patient service in two institutions was recommended.

12. Admission of patients by trained medical social workers. No fundamental changes in admission policies by any clinic until they have been cleared with the section on out-patient services of the health council.

13. Central registration of social problem cases and of patients requiring long and expensive treatment but not, for the present at least, of routine clinic cases.

14. Adoption of uniform minimum standards for collection of financial data, preferably on a standard form, and their interpretation on the basis of a family budget common to all agencies concerned.

15. Provision for telling relief clients that they are free to select a private physician or an out-patient service.

16. Unless there are satisfactory reasons for change, all patients of other clinics to be referred back to the institution previously used.

17. Provision for routine inquiry about former treatment by private practitioners and more uniform understanding on length of time which should elapse before a patient ceases to be considered as "under the care of a physician." Also a more uniform policy for securing the physician's release of the patient.

18. Adoption of a follow-up system at least for patients with the following types of disease or condition: heart disease, tuberculosis, venereal disease, pregnancy, cancer, orthopedic difficulties and eye condition threatening blindness.

19. Improvement in the quality of medical records in certain institutions by fixing responsibility for their completeness upon some staff physician, by adopting minimum standards of adequacy and by providing clerical assistance.

20. Development by the proposed out-patient section of more adequate methods of financial accounting.

21. Adoption of more uniform policies regarding out-patient fees with some charge in all clinics, remitted of course where indicated in individual cases.

22. More adequate attention and support for medical social service for out-patients and an improved quality of personnel.

Virginia Is Undecided

Virginia seems to be having a difficult time deciding whether or not hospitals are hotels. Last year a bill was introduced in the state legislature giving hospitals the same rights as hotels in the seizure of baggage for nonpayment of bills. The bill was defeated in committee, because a hospital was not a hotel. Recently the city council of Richmond tried to impose a tax of \$1 a year for each private bed in a hospital. This form of taxation, which was aside from the real estate tax, would have put hospitals definitely in the hotel classification.

Evanston Hospital Receives Trust Money

Evanston Hospital, Evanston, Ill., is one of seven philanthropic institutions that will share in the estate left by the late Mrs. James A. Patten of Evanston, who died last month.

Mrs. Patten had been a member of the board of trustees of the hospital since 1898 and was a life member of the American Hospital Association. Before his death, Mr. Patten was also

deeply interested in the hospital. In 1910 the Pattens gave money for Patten Hall, the nurses' dormitory at Evanston. That was later outgrown and in 1930 a new nurses' home, Patten Memorial Hall, was built with funds provided by the Pattens. Ada Belle McCleery, superintendent of Evanston Hospital and a member of the editorial board of *The MODERN HOSPITAL*, is a niece of Mrs. Patten.

It is estimated that the Evanston Hospital's share in the Patten estate will approximate \$1,000,000.

Changes Nurses' Training

A definite step in beginning postgraduate education for nurses has been taken by the New York Post-Graduate Medical School and Hospital, New York City. The undergraduate branch of the Margaret Fahnestock School of Nursing has been closed and hereafter only graduate nurses will be registered for special or postgraduate courses. This decision, according to the hospital's announcement, "parallels the postgraduate teaching of physicians, which has been the special field of this institution since its founding in 1882."

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Legislative Problems Are Joint Committee's Concern at Chicago Meeting

The work of the joint committee of the three national hospital associations in Washington in connection with the proposed federal legislation for unemployment and old age insurance was outlined by Robert Jolly, president, American Hospital Association, at a meeting of the presidents, secretaries and legislative chairmen of state and regional hospital associations held in Chicago, February 18 and 19.

The joint committee has asked that nonprofit hospitals be exempted from contributing under these measures but that hospital employees be given the benefit of the protection afforded by them. This request is based on the fact that unemployment is a small problem in hospitals, that the nonprofit hospitals would have to reduce wages and curtail free work to the extent that they were obliged to contribute, that they cannot increase rates, that the free load of hospitals tends to increase in times of widespread unemployment, and that hospitals have carried the cost of free service without any help from federal relief funds.

The legislative problems faced by the various state hospital associations were discussed in considerable detail. In most states hospitals have obtained interpretations of sales taxes that put them in the class of consumers rather than purveyors. In one state hospitals have been given full exemption from sales taxes, on both purchases and their charges to patients.

Legislative Problems Discussed

In the discussion of legislative problems interesting facts and opinions were brought out. The New York bill for an eight-hour day for nurses will probably pass. State aid in Pennsylvania is temporarily stopped because of lack of funds. A digest of the state legislation and legal decisions affecting hospitals is being prepared by the council on community relations and administrative practice.

Engaging nurses to work for board and room is arousing intense criticism of hospitals in some states. State control of hospitals in Pennsylvania is beneficial in developing uniform accounting and uniform standards of building, equipment and administration. The lack of control in other states permits almost any kind of an institution to pose as a hospital. The Texas Hospital Association employs a full-time attorney to represent it at the legislature and in malpractice suits.

A proposed bill in Ontario to pay physicians for calls to the indigent may react unfavorably on hospital outpatient departments, which now receive 32 cents a visit. A proposed Minnesota law would set up a state nurses' commission to control nursing education and pay one-half of the cost of the strictly educational aspects of such education. The bill has been withdrawn but will be reintroduced.

Celebrates 150th Anniversary

A firm that was founded before the Constitution of the United States was adopted is celebrating this year its one hundred fiftieth anniversary. This firm, Lea and Febiger, still publishes the oldest medical journal in the United States, the *American Journal of the Medical Sciences*. The first editor of this journal, Dr. Nathaniel Chapman, was also the first president of the American Medical Association. During its career the firm has published the works of Poe, Cooper and other famous Americans. Now it is devoted largely to scientific publications.

Seven Groups of Hospital Workers Unite for Tri-State Meeting in May

Nurses, dietitians, medical social workers, record librarians, physical therapists and occupational therapists of Indiana, Illinois and Wisconsin are joining with the hospital associations of the three states in the Tri-State Hospital assembly in Chicago this year on May 1, 2 and 3.

The program is planned so that all these groups will meet together in discussions of common problems in the mornings of each day, but will meet separately in the afternoons.

On Wednesday, the opening day, the general subject for the morning session will be "Present and Future Trends in Hospital Management and Service." This will be discussed from the viewpoint of the hospital administrator, the nurse, the dietitian, the medical social worker, the record librarian, the occupational therapist and the physical therapist. Following a fellowship luncheon sponsored by the Indiana Hospital Association, the afternoon will be devoted to sectional meetings of the various groups par-

Public Nursing Program Urged at Meeting

A public nursing program was urged by Josephine Roche, assistant secretary of the treasury in charge of public health activities, at a meeting of the National Organization for Public Health Nursing in New York City. That the death rate from tuberculosis, which had been cut 60 per cent since 1920, could have been halved again with adequate health facilities was a significant fact emphasized by Miss Roche.

Only 528 of the 3,000 counties in the nation had full-time public health services, Miss Roche indicated. Likewise local appropriations of public health had decreased 20 per cent on the average since 1930. "In the last four years," she said, "the per capita expenditure from tax funds for public health in seventy-seven cities has decreased from 71 to 58 cents."

Health teaching is the most essential factor in the modern health program according to Dr. C.-E. A. Winslow, professor of public health at Yale School of Medicine and former president of the American Public Health Association. "It is primarily to the public health nurse that we must look for such education," Dr. Winslow said.

ticipating in the conference. A general assembly of all groups sponsored by the trustees of the Chicago hospitals will be held in the evening.

On the second day the general subject for the morning session will be "Trends in Education as Affecting the Hospital." This also will be discussed from the standpoint of each of the participating groups. A joint noon luncheon with sectional and business meetings in the afternoon will follow. The annual Tri-State banquet is scheduled for Thursday evening.

Friday morning will be devoted to a joint session on economics. At luncheon on Friday representatives of the national associations—A. H. A., A. M. A., A. C. S. and A. C. H. A.—will speak for the viewpoints of their organizations. Friday afternoon there will be two sessions, one a general session on hospital topics such as the lien law, annuities for hospital employees, and nursing costs and hours, and the other a round table conference on problems of the small hospital.

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Developments in Nebraska Indicate Progress

Two bills of importance to the medical profession are up before the state legislature of Nebraska during its present session. The first, one similar to bills being introduced in thirty-eight other states, would give the state control of medical practice. The second, a bill to regulate the practice of nursing in Nebraska, would take this profession from the Department of Welfare and place it under the department of public instruction or the department of education.

The nursing profession is doubtful about the passage of this bill at the present time, but feels that the need for such an act is imperative enough to make certain its becoming a law in the near future.

The University of Nebraska plans to build a new hospital at its medical center in Omaha, if it receives the expected \$3,000,000 from the federal fund allotted to the state.

The Nebraska Methodist Episcopal Hospital of which Rev. Harry E. Hess is superintendent, received an endowment of \$10,000, and a collection of tapestries, paintings and rugs from Doctor and Mrs. I. C. Wood, who also gave the hospital a dresser from Tokyo, a companion piece to one in the Joslyn Memorial Art Gallery.

Program Announced for Convention of Texas Group

The program for the sixth annual convention of the Texas State Hospital Association to be held at Marlin, March 22 and 23, has not yet been entirely completed, but those features which are definitely scheduled hold much interest for hospital personnel.

Dr. Lucius Wilson, superintendent, John Sealy Hospital, Galveston, Tex., will preside at the round table discussion on the importance of case histories. Dr. C. M. Rosser, chairman of the Texas State Board of Health, will talk on "Public Health, How Hospitals Can Help," and J. Dewey Lutes, director general of the American College of Hospital Administrators and superintendent, Ravenswood Hospital, Chicago, will discuss the "Importance of Efficient Hospital Administrators."

The Hon. R. E. L. Bobbitt, former attorney general of Texas, is scheduled to talk on "The Legal Aspect of Group Hospitalization," Clifford E. Hunt, superintendent of the Lubbock Sanitarium, Lubbock, Tex., will lead the discussions on collections and cred-

its. "The Relation Between Hospitals and Graduate Nurses' Service" is the subject chosen by Olga M. Brie-han, president of the Texas Graduate Nurses' Association.

Housekeepers Complete Course

The course of ten lectures on housekeeping for which twenty-five housekeepers signed up in Philadelphia in the early part of this winter, has now been completed, with the result that certificates have been presented to twenty-two members who finished the series. Talks by authorities have furnished helpful information on such subjects as job analyses, schedules, the purchase and maintenance of mattresses, blankets, cotton and linen textiles, rugs and carpets. The course was conducted by Mrs. Doris L. Dungan, housekeeper, Jeanes Hospital, Fox Chase, Philadelphia, and president, Philadelphia chapter, National Housekeepers Association.

Practical Work Undertaken by Students in U. of C. Hospital Administration Course

With the beginning of the second quarter of the course in hospital administration at the University of Chicago, the six students registered are devoting a large part of their time to practical work in hospitals and clinics in or near Chicago, and to conferences with instructors and specialists in various branches of hospital administration.

The course opened last autumn under the auspices of the university's school of business, with the cooperation of the University of Chicago Clinics and Hospitals. Only applicants holding a bachelor's degree from a recognized college or the degree of doctor of medicine or doctor of public health and who contemplate entering the field of hospital and clinic administration were accepted.

It has been the intention to secure students of varied training and background in order that this educational experiment may be worked out in proper adaptation to the needs of different types of students. Thus of the six selected, four are men and two are women.

One student is a physician; one a nurse; two have recently graduated from the school of business at the University of Chicago; one has recently taken his bachelor's degree from an Eastern college without special previ-

Western Hospital Meeting Attracts 2,000 Delegates

The Western Hospital Association convention at San Francisco, February 18 to 21, reaffirmed its approval of adequate systems of health service insurance providing medical and hospital care on a monthly budgetable basis and resolved to encourage the official committee of the California senate to sponsor a law to carry this into effect.

The meeting was reported to be the most successful in the history of the association with more than 2,000 persons in attendance.

Robert Jolly, president of the American Hospital Association, was detained in Chicago during the first two days of the meeting but arrived by plane on Wednesday morning. Dr. L. M. Wilbor, superintendent, San Francisco Hospital, was chosen as president-elect and J. V. Buck, superintendent, St. Luke's Hospital, Spokane, was installed as president.

ous preparation in business or biologic subjects; one has a similar background but has had experience for some years in the administrative office of a hospital. All but one of the students have had some definite contact with hospitals during the period of college or professional training.

During the autumn quarter the students spent most of their time in academic courses planned for each individually, so as to supplement the student's previous training. Those with a medical background therefore gave most of their time to business courses while the students who had pursued these subjects took certain basal courses in the health field.

It is expected that students will spend three or four quarters in residence at the university, followed by a period of administrative internship, and that each will undertake a piece of investigative work, which, in the case of those who are candidates for a graduate degree, will serve as the thesis required.

Cooperating with Dean William H. Spencer of the school of business in planning and administering this course are Dr. Arthur C. Bachmeyer, director, University of Chicago Clinics, and Dr. Michael M. Davis, director for medical services, Julius Rosenwald Fund, Chicago.

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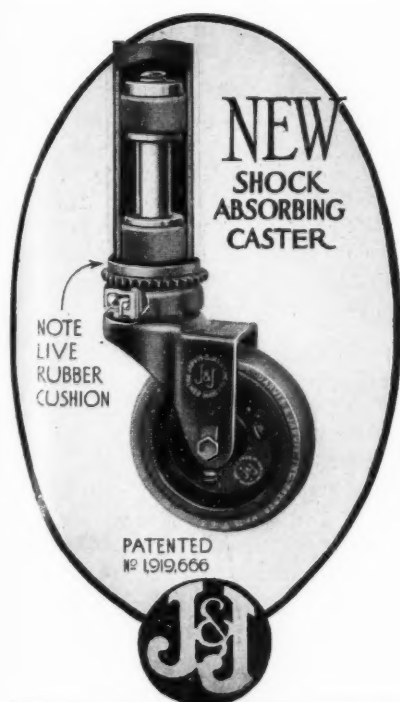
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PERSONALS

SAMUEL COHEN is superintendent of the new Jewish General Hospital, Montreal, Que. For the past fourteen years Mr. Cohen has been associated with Beth Israel Hospital, New York City. Previous to that he was pharmacist at New York Post-Graduate Medical School and Hospital, New York City.

JEAN SMITH has been appointed dietitian of the Irvington General Hospital, Newark, N. J. Miss Smith was formerly identified with Bergen Pines, Ridgeview, N. J.

RUTH THORPE, superintendent of Golden State Hospital, Los Angeles, is on a year's leave of absence completing work for a B.A. degree at the University of Washington. MILDRED TRACY is acting superintendent during her absence.

DR. EDWIN L. SHEAHAN is now superintendent of the St. Louis County Hospital, Clayton, Mo.

MARGARET MARLOWE, administrative dietitian at Methodist Hospital, Indianapolis, has resigned after twenty-two years of service to that institution. She has been succeeded by her assistant, VERA ANSORGE. Mrs. Marlowe, however, will continue to serve the hospital in the rôle of consulting dietitian.

AGNES MARTIN, superintendent of Huntington Hospital, Huntington, N. Y., sailed for Europe on a vacation. She expects to be away from her hospital duties for about a month.

FERN SNOWDEN was appointed superintendent of the Davier Memorial Hospital at LaHarpe, Ill., in January.

DR. B. C. BERNARD, superintendent of Oakland Park Sanatorium, Thief River Falls, Minn., is resigning on April 15 and returning to a private practice at Gulfport, Miss.

J. RUSSELL BUTLER is the new superintendent of the Underwood Hospital at Woodbury, N. J.

DR. ADAM EBERLE, medical superintendent of Kings County Hospital, Brooklyn, N. Y., was recently appointed junior medical superintendent of all city hospitals in New York City. Dr. Edward Bernecker, medical superintendent, Metropolitan Hospital, Welfare Island replaces Doctor Eberle.

F. E. KASSNER, the accountant at Michael Reese Hospital, Chicago, has been appointed assistant superintendent of the institution, filling the vacancy left by W. MEZGER.

HARRIET J. POE is the new principal of the school of nursing and superintendent of nurses at the Methodist Episcopal Hospital, Fort Wayne, Ind. Until February, Miss Poe was supervisor of nurses at the Methodist Hospital, Indianapolis. She is succeeding HAZEL VAN DREW who resigned the first of February.

DR. FRANK E. GUILD, president of the staff of Windham Community Memorial Hospital, Willimantic, Conn., died in the Johns Hopkins Hospital, Baltimore, at the age of eighty-one. Doctor Guild had served as head of the staff for more than twenty-five years.

NOAILES HAYES has been appointed superintendent of St. Joseph Sanatorium, St. Joseph, Mich.

DR. ANNIE R. ELLIOTT was elected superintendent of Norristown State Hospital, Norristown, Pa., by the board of trustees to fill the vacancy which has existed at the hospital since the death of DR. S. M. MILLER last May. Doctor Elliott has been connected with the institution for twenty-one years, and served as assistant superintendent under Doctor Miller.

ANNE GOSMAN was recently appointed superintendent of Herman Knapp Memorial Eye Hospital, New York City.

ELIZABETH WILLIAMS is the new superintendent of the Lee County Hospital, Sanford, N. C.

IDA M. HICKOX, formerly educational director of Prospect Heights Hospital, Brooklyn, N. Y., has been made superintendent of nurses at Cohoes Hospital, Cohoes, N. Y.

MRS. ELMA Z. LORING, is now superintendent of Gaston Sanatorium, Inc., Gastonia, N. C.

SISTER MYRTHA BINDER, head sister at the Bethany Deaconess Hospital, Brooklyn, N. Y., died at the age of seventy-three years after a short illness. Sister Myrtha Binder established the hospital forty-two years ago.

DR. WILLIAM H. BUCHER, for the past thirteen years superintendent of Olive View Sanatorium, Olive View, Calif., died recently at his home in San Fernando, Calif., following several weeks' illness. Doctor Bucher had been engaged in tuberculosis work for twenty-five years.

JOSEPHINE F. GOLDSMITH has been appointed superintendent of nurses at Muhlenberg Hospital, Plainfield, N. J. For the last three years Miss Goldsmith has been educational director and assistant superintendent of nurses in the Cumberland Hospital, Brooklyn, N. Y.

DR. BLAKELY WEBSTER has been appointed superintendent of Dannemora State Hospital, Dannemora, N. Y., succeeding DR. CHARLES BURDICK, who retired several months ago. Doctor Webster has been acting superintendent of the hospital since his retirement. The institution has accommodations for about five hundred patients.

DR. H. E. HAYMOND was appointed superintendent of Midwest Hospital, Midwest, Wyo., in February.

LEE B. MAILLER has been made business manager of the Cornwall Hospital, Cornwall, N. Y., and AGNES M. CRAWFORD has been appointed superintendent of nurses. These two appointments abolish the former positions of superintendent and assistant superintendent.

EVA ADAMS WRIGHT, graduate of Boston School of Domestic Science, has been made chief dietitian at Muhlenberg Hospital, Plainfield, N. J., filling the post left vacant through the resignation of MARY M. FANNING. Miss Wright has twice before been chief dietitian at Muhlenberg.

DR. FREDERICK B. MANDEVILLE has been appointed roentgenologist in the hospital division of the Medical College of Virginia, Richmond, Va. Doctor Mandeville was for two years instructor of roentgenology at Yale University and later roentgenologist to the Peralta Hospital, Oakland, Cal.

F. J. THIELBAR, Chicago architect, was recently chosen as president of the board of trustees of Wesley Memorial Hospital, Chicago.

Let New Ward Profits Begin



When Conversation Turns to "My Operation"... and Hospitals

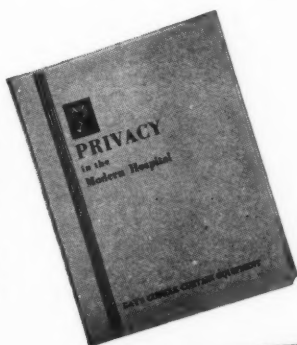
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Baby-San is made with no oil except edible, first-press olive oil. Being absolutely neutral—without excess alkali—it cannot irritate the baby's skin or produce dryness.

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Thirty-Five Publicity Methods Suggested for National Hospital Day Celebration

The National Hospital Day committee of the A. H. A. under the chairmanship of Albert G. Hahn, business manager, Deaconess Hospital, Evansville, Ind., has urged that hospitals lay particular stress on the day this year as a tribute to Matthew O. Foley.

Because it is the year 1935 the committee has suggested thirty-five methods of publicity that might be used to gain public attention. These are as follows:

1. Invitations on milk bottle collars.
2. Cards in weekly club letters.
3. Invitations to surrounding towns dropped by airplanes.
4. Folders, such as those put out by Parke Davis Co., for publicity at churches and civic clubs.
5. Notices in county medical bulletins.
6. Information to doctors of community regarding the purpose of National Hospital Day and plans for its observance.
7. Gummed stickers on outgoing mail just previous to National Hospital Day.
8. Advance posters for National Hospital Day on delivery trucks and street cars.
9. Pay roll enclosures to be sent to merchants and manufacturers for use in their pay roll envelopes.
10. Resolutions from mayors setting aside National Hospital Day.
11. Displays in windows of downtown stores.
12. Poster contests in schools.
13. Posters displayed in show windows and public elevators.
14. Announcement of the day's program on patients' trays.
15. Reception of board of trustees and the entire medical staff and their wives.
16. Tea for student nurses and their mothers.
17. Homecoming for nurses' alumnae.
18. Dedication of new departments or equipment.
19. Lectures on diets by dietitians and distribution of diet sheets.
20. Thoroughly planned inspection of hospitals, with plenty of well informed guides, graduate nurses if possible. Route sheets describing briefly the departments as they are visited; these sheets to be taken home and studied.
21. Explanation by nurses of an operating room set up.
22. National Hospital Day parade.

23. Blowing of factory whistles at a specified time to call attention to National Hospital Day.

24. Suitable playlets whenever this is possible.

25. National Hospital Day baby.

26. Baby reunion.

27. Broadcasts just before National Hospital Day and also program on trailers in theaters.

28. Community program at night.

29. National Hospital Day "extra" edition of newspaper at noon.

30. Display of flags by merchants as on national holidays.

31. Use of National Hospital Day trailers in theatres.

32. Mention of National Hospital Day in merchants' advertisements.

33. Editorials in the local papers on National Hospital Day.

34. Pageant by student nurses, medical staff, high school or college students or others on the life of Florence Nightingale, medicine through the ages, the contribution of hospitals to social progress or similar topic.

35. Announcement of new type of hospital service offered to the public, such as group hospitalization, flat rates, new types of clinics or hourly nursing.

Receives Gift of Land

Pinecrest Sanatorium, Powers, Mich., received a gift of eighty acres of high, timbered land adjoining the sanatorium grounds from G. A. Blesch, a member of the board of trustees.

Marine Hospital, Chicago, Doubles Size by New Unit

Surgeon-General Hugh S. Cumming and Dr. S. L. Christian of the United States Public Health Service, Washington, D. C., and Dr. Walter L. Biering, president of the American Medical Association, Des Moines, Iowa, were among the distinguished guests at the dedication of a new unit of the United States Marine Hospital of Chicago on February 18.

The unit, which increases the bed capacity of the institution from 125 to 225 beds, also contains approximately twice as much space devoted to operating rooms, x-ray and clinical laboratories, dental offices and other special services as was available in the old building.

In addition to constructing the new unit the old hospital building was extensively remodeled and partially refurnished. Additional residences for the medical staff and employees were built at the same time. The front entrance to the hospital now faces toward Lake Michigan instead of toward the city.

The total cost of the construction, not including new equipment and furnishings, was \$600,000. F. J. Thielbar of Chicago was the architect.

Correspondence

Sirs:

For years *The Modern Hospital* has been my guide in stimulating thought for exploration of new fields but frankly I must take issue with your editorial on "suicides." (December issue—Ed.)

Beyond taking prompt measure in delirium cases by providing window guards, I personally feel there is very little any hospital executive can do to prevent these unfortunate occurrences. My own observation is that invariably these people give no previous manifestation or expression of intention and I cannot help but feel that the hospital executive carries enough of actual responsibility without being laden with this last suggestion.

To date we have only had one of these unfortunate occurrences and this happened to be one of my good friends for whom the utmost was being done. Having gone through this actual experience, I happen to know firsthand whereof I speak. Obviously, deadly poisons should be kept far removed from patients' access and this is being done quite generally.

Just what inspired this article I am indeed curious to know. The thought occurs to me that it may have been intended for some hotel journal where it would be in keeping with the times but just as impotent with respect to preventive measures.

L. C. VON DER HEIDT,
Superintendent.

West Suburban Hospital,
Chicago, Ill.

Sirs:

Relative to the article appearing on page 106 of the January issue, can you tell me whether the *Edgewater Beach Salad Book* by Arnold Shircliffe, can be purchased? If so, where and for what amount?

E. W. MEISENHOLDER.

West Side Sanitarium,
York, Pa.

Mr. Shircliffe's book, "The Edgewater Beach Salad Book," may be purchased from John Wiley, 954 Merchandise Mart, Chicago, at \$5 a copy.—Ed.

Sirs:

"Just in Passing," Dr. Basil C. MacLean's touch is more deft than accurate, his reasoning more profuse than profound. And I seriously doubt that he has read the final report of the grading committee.

Someone at some time has pointed out the hundred hours of chemistry—terrible. Has anyone ever asked him why, since a nurse spends three thousand hours in bathing patients during her three years of training, she still may not be doing it well? In one hundred hours of chemistry a nurse learns more about balancing a chemical equation than she learns about bathing in three thousand hours of giving baths. Why not worry less about the chemistry and more about the instruction and supervision in bedside care?

Incidentally, I know that the nursing care given the sick is appallingly mediocre. But why use our poor little curriculum as a red herring to obscure the trail to real reform?

I should like to know if *The Modern Hospital* has any policy about nursing? Some articles are exceedingly worthwhile. Those which aggravate may be quite as useful as any others.

A. FAITH ANKENY, Chief Nurse.
Corwin Hospital,
Pueblo, Colo.



What—a doctor with only ONE prescription for all!

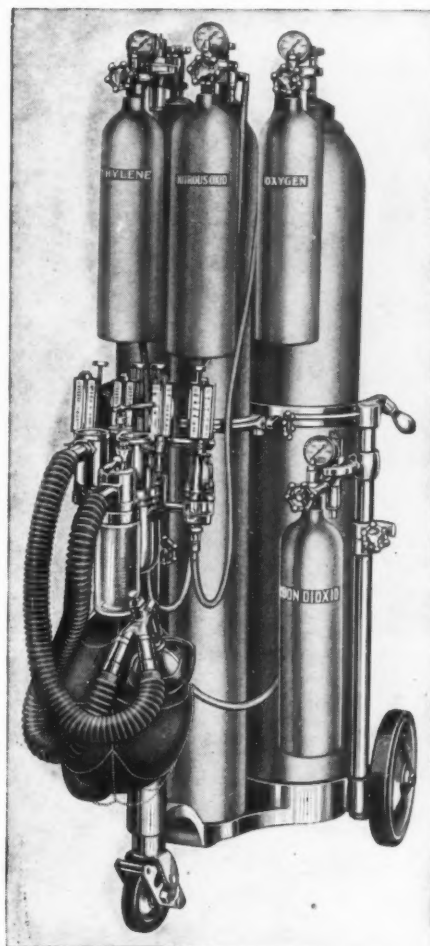
PEOPLE and their needs for medical service vary. So do institutions and their needs for electric refrigeration. Kelvinator long ago recognized that each refrigeration job was a special one and developed its principle of **EXACT SELECTION** so that, for each type of installation, exactly the right equipment to do the job completely and economically could be provided.

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The patient's condition is better during operation and post-operatively.

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In addition, SANI-TAB offers the patented "tab" which eliminates contact of thumb or fingers with the inner rim of the sterilized nipples, and makes for easier handling in applying nipples to bottles. SANI-TABS last longer, too. Are you using "SANI-TABS"? Order a supply today from your surgical and hospital supply house.


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"Anti-Colic"
brand, Sani-Tab.
Pure amber gum.
Medium size
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brand, medium.
Standard style.
Pure gum, black.



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BOOKS ON REVIEW

A TEXTBOOK OF STERILIZATION. By Weeden B. Underwood, B.S. in E. E. Erie, Pa.: American Sterilizer Co., Pp. 121 with 46 illustrations. \$2.

The conscientious hospital superintendent who reads this book will probably react as I did. If so, he will leave his comfortable reading chair for an immediate trip to hospital sterilizing rooms, book in hand, to check apparatus and methods against the lucidly recorded do's and don'ts of sterilization which the book contains.

This compact volume presents in language both simple and clear, not only the fundamental facts of sterilization but also the actual mechanics by which safe, sterile materials may be prepared and processed for the hospital surgery and ward dressing rooms.

The author does not content himself with a presentation of the correct method only. He continually warns against improper methods explaining how these pitfalls may be avoided. The material presented will be understood by any nurse or physician who has more than a passing acquaintance with a sterilizing room. To the student nurse the volume may well serve as an advanced text and a reference book. Its information is indispensable to three persons in every hospital, namely, the superintendent, the operating room supervisor and the chief engineer.

Emphasis is laid upon the need to judge sterilization by temperature at the outlet of the sterilizing chamber rather than by pounds of steam pressure. The meaning and importance of "vacuum" and how to obtain it in proper degree are explained. The duties of the steam fitter as well as those of the nurse are set forth. Hospital sterilization is thoroughly covered, including dressings, sterile water, solutions, laboratory products, utensils, surgical instruments and rubber goods. The dangers of and preventive measures against pollution through back siphonage are presented by text and diagram. Packaging, drums, sterilizer controls, water distillation and many other topics are discussed.

The facts are presented, in the main, from an objective viewpoint with little reference to features which might be controversial between rival manufacturers of equipment.

Mr. Underwood is known to the field through his researches in sterilization as well as through previous publications and appearances at hospital meetings.—C. W. MUNGER, M.D

AN ACTIVITY ANALYSIS OF NURSING. By Ethel Johns, R.N., and Blanche Pfefferkorn, R.N. Prepared under the auspices of the Committee on the Grading of Nursing Schools. New York City: The Nursing Information Bureau, American Nurses' Association, 50 West Fiftieth Street, 1934. Pp. 214. \$2.

Before nursing schools can prepare good nurses, it is necessary to know what good nursing is and how it can be taught. Consequently a job analysis became a grading committee project.

To two competent nurse research workers, the committee turned over this task, and now comes a summary of their work, which they are careful to state is not final or complete.

Setting out to define good nursing from the point of view of patient, physician, hospital administrator, community and nurse, the authors reach eight conclusions. Follows then a list of conditions requiring nursing care and the professional activities necessary to give it. The nurse's activities (there are 798 in the first list alone) are broken up into logical groupings.—MILDRED WHITCOMB.

The MODERN HOSPITAL

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Service



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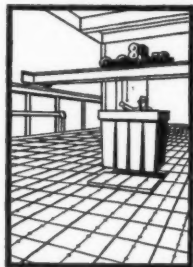
Are You Getting the Full Benefits of Modern Refrigeration?



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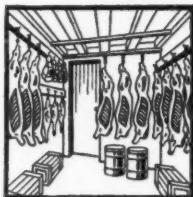
Test and Research



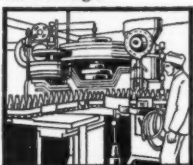
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Today, Refrigeration serves in a dozen or more profitable ways. Other businesses in your line are using it for one or more of the following jobs:

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- Test and research work
- Processing foods, chemicals, etc.
- Cooling boxes and display cases
- Serving soda fountains and bars
- Precooling fruits before shipment
- Making block ice, ice cubes, ice chips or dry ice
- Keeping furs, flowers, candy, serums, etc.
- Freezing ice cream and other desserts
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- Sinking shafts in quick-sand
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Let the nearest Frick man aid you in adapting Refrigeration, the New Tool of Industry and Business, to your particular problems. No obligations; but write, wire or phone today.

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Ask the Continental representative who calls on you, or write to Department 313 for a testing sample without charge or obligation. There is no better way to learn the fine aroma, body and flavor of Continental Coffee.

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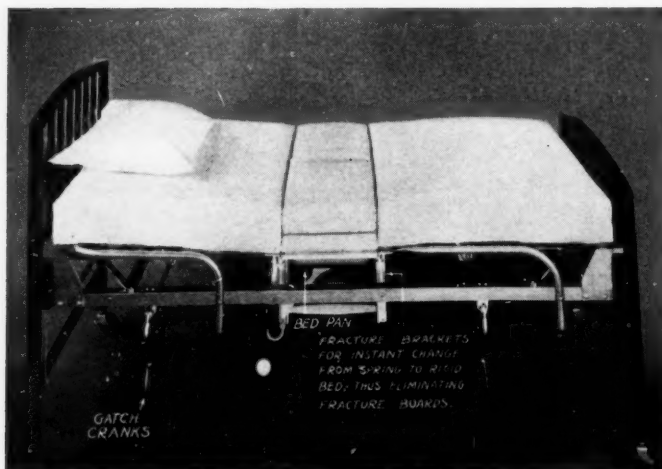
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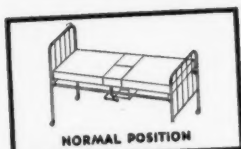
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hastens recovery because the patient is not disturbed

..... gently raises the patient and serves the pan by the turning of a handle.

..... is of particular benefit in the treatment of fractures and essential in cases where immobility is desired.

..... requires only one attendant, regardless of the weight of the patient.

..... supersedes the Bradford-frame and fracture boards, while the waterproof mattress eliminates the use of rubber sheeting.

..... is also Gatch type—crank operated.

Serving the Pan by

"TURNING A HANDLE!"

In this small space we cannot begin to tell you about the many unique features of the MERCY AUTOPAN BED. May we send you a copy of our illustrated circular and full information? It will pay you to get the facts. Write today.

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NEWS FROM MANUFACTURERS

New "Pyrex" Dish Resists Breakage

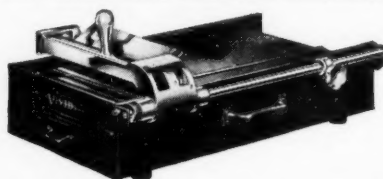
A new "Pyrex" Petri dish designed to resist breakage has been announced by Corning Glass Works, Corning, N. Y. A strong reinforcing bead of glass around the rims strengthens the dish at its weakest point and enables it to withstand repeated mechanical shocks with little danger of chipping, it is stated.

The other advantages of these dishes, according to the manufacturer, are: chemical stability which permits repeated sterilization by hot air or steam pressure without clouding; heat resistance which reduces breakage during sterilization; transparency better than fine plate glass; harder than ordinary glass; tops and bottoms are interchangeable.

A Low Priced Duplicating Machine

There are many uses for duplicating machines in hospitals. They may be used to prepare charts and graphs, office forms, notices and bulletins, accounting forms and examination papers for the nurses' training school.

A low priced duplicating machine especially designed for small users has been announced by L C Smith & Co-



rona Typewriters, Inc., Syracuse, N. Y. The Vivid Junior is equipped with the "floating carriage" found in the company's most expensive models, and it employs the new Vivid "Dupli-Pad."

Making reproductions with the machine is a simple process. The first step is to prepare an original or master copy. Next a Dupli-Pad is inserted into the grooves of the bed plate of machine and slid into place. The master copy is then inserted face down on the Dupli-Pad for from 10 to 30 seconds, allowing the ink to be transferred from master copy to Dupli-Pad, then the master copy is removed and the machine is ready for use.

The machine reproduces in one operation all of the various colors that may be used in preparing the master copy.

Dishwasher Fits in Small Space

An electric dishwasher that is adaptable to either small or large kitchens, simple in design and low in price, has been announced by Surgex Manufacturing Co., Fourth and Madison Streets, Oakland, Calif. The Surgex is built in but one pattern and size. Capacity is determined by the combination of sinks and arrangement of units. It has only one moving part—the impeller, which is connected directly to the motor.

When dishes are to be washed, the machine is set into the sink and the cord is plugged into the light socket. The dishes, set edgewise in the basket, are placed directly in front of the machine with the sink compartment about half full of water. By the Surgex method, all dishes are first soaked in tepid water, then washed in hot, soapy water and finally rinsed in scalding water.

The machine is designed for use with sheet metal sinks of two, three and four compartments.



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**Ten of Many Aids
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Better Beds for the MODERN Hospital . . .



Positive in Action

Easy to Operate

The above illustration demonstrates just *one* instance of superior design and construction characteristic of *all* Inland Hospital Beds. It shows the complete safety of the patient on an Inland Bed. Both men, seated at the extreme top of the spring, are easily raised or lowered without the slip of a notch.

Removable SAFETY SIDES

Can be supplied to fit your present beds, or may be obtained with any Inland Model, such as No. 766, illustrated below. We also feature a new, inexpensive portable back rest, for use on any bed, adjustable to 6 positions. Write for illustrated literature and prices.

Many of the country's leading hospitals and institutions have selected *Inland* Products because they are dependable, attractive, and comfort giving.

WRITE TODAY
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INLAND BED CO. Manufacturers

BEDS • MATTRESSES • METAL FURNITURE

3921 S. Michigan Ave.

Chicago, Illinois

Plate Glass Absorbs Heat

A new type of plate glass that differs from ordinary plate or window glass has been announced by Libby-Owens-Ford Glass Company, Toledo, Ohio. "Aklo" plate glass is a glass of special chemical composition which has the peculiar property of being able to absorb heat, and thus reduces the amount of the sun's heat entering through a window during the summer. It is more resistant to sudden temperature changes than ordinary window glass, according to the manufacturer.

This type of glass, like ordinary window glass, does not transmit heat waves thrown off from a radiator or other heating device in a room and so will not cause heat to leave the room in the winter when it is desired to keep the heat in the room, the manufacturer explains.

Aklo plate glass, however, is designed to absorb heat energy from all other light sources that contain heat energy, as well as from the sun. As there are many occasions where it is desirable to transmit light without the heat energy that accompanies it, there should be many applications for a glass of this type in the hospital.

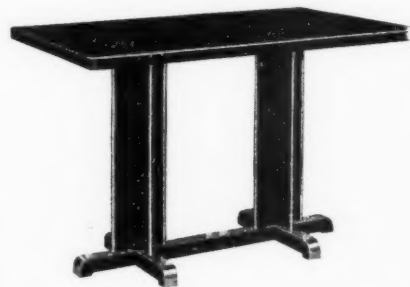
Metal Furniture for Hospitals

Graceful curves, softly rounded corners and pleasing ornamentation have replaced the straight lines, the sharp angles and the metallic harshness to which metal furniture was formerly restricted. Its durable construction, economy of maintenance and the pleasing atmosphere it creates in a room have led many hospitals to use this type of furniture.

Interesting suggestions regarding the manufacture of metal furniture and its application in hospitals are contained in a booklet prepared by Doehler Metal Furniture Company, Inc., New York City. Illustrations in color show clearly the attractive arrangements that may be achieved in patients' and nurses' rooms.

Included in the company's line are strikingly attractive metal tables especially designed for use in cafeterias and dining rooms. The tops of the standard models are surfaced with battleship linoleum cemented to the steel tops and bound on all edges by stainless steel binding. The accompanying illustration shows a double pedestal model table. Special chairs are available to go with the tables.

The company's Catalogue No. 33 shows a wide line of metal hospital equipment, including various kinds of tables, cabinets, stands, nurses' desks, bassinets, wheel stretchers and conveyors.



Custom-Made Metal Sinks

Custom-built stainless metal sinks to meet any dimensional or appearance demand are announced by the John Van Range Company, Eggleston Avenue, Cincinnati. The sinks are fabricated of 14-gauge metal, with all welded construction, and all joints are ground and polished to give them a one-piece appearance. Horizontal and vertical corners are coved to a 3/4-inch radius, leaving no crevices to accumulate grease or dirt.



Safe...
Sure...
Simple.

Baby IDENTIFICATION

Hospitals build prestige with this visible proof of accurate identification. Baby-Beads are easy to use. The nurse prepares the surname in lettered beads when the patient enters the hospital. If a boy is born, blue beads are added to complete the necklace or bracelet; if a girl, pink beads are added.

Baby Bead Outfit Complete, 50 beads each of alphabet, 500 each pink and blue beads, 100 waterproof 18-inch strings, 100 lead seal beads, pliers, in box.....\$25.00

Initial Beads, asstd. as wanted, per 100.....	6.00
Pink or Blue Beads, per 500..	1.50
Waterproof Strings, 18-in., per 100	2.90
Lead Seals, per 100.....	1.00
Necklaces, Blue or Pink, per 100	14.00

Complete
BABY
BEAD
Outfit



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NEW YORK CITY

TRYPARSAMIDE MERCK

Sodium salt of N-phenylglycineamide-p-arsonic acid

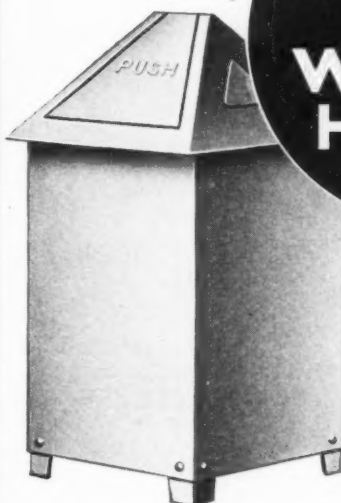
Council Accepted



Tryparsamide Merck Is The Chemotherapeutic Agent of Choice in the Treatment of Neurosyphilis.

MERCK & CO. Inc. Manufacturing Chemists RAHWAY, N.J.

**DISPOSE
OF
WASTE
HERE**



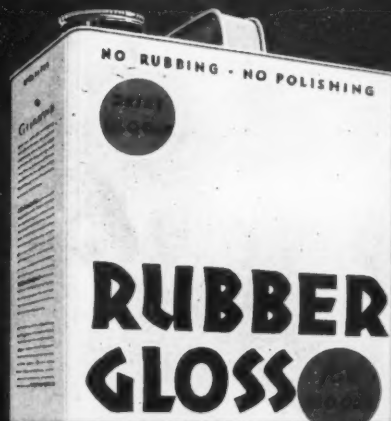
**SOLAR WASTE
RECEPTACLES**
—invite use

They make it easy to "Dispose of Waste Here." In corridors and wash-up rooms. In the

Diet Kitchen, Laboratory, or Solarium—everywhere—they help you keep your buildings clean, neat, attractive. The swinging top opens at a touch and silently closes again. Many sizes and a variety of finishes. Send for booklet and prices today.

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Melrose Park, Illinois



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TOUGH RUBBER-LIKE

Wax

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IT IS ONE
HUNDRED
YEARS GOOD
BUT BECAUSE
IT IS THE
BEST, MOST
LASTING
INK IN THE
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LEADING HOSPITALS SELECT WITT CANS

... because

In tests at the Pittsburgh Testing Laboratory, Witt Cans were proved from 50% to over 400% stronger; definite proof of their ability to "stand the gaff" and give years of good service.

1. Their improved design and snug-fitting covers make them moisture-proof, dust-tight, and odor-tight.
2. WITT CANS last three to five times as long as ordinary Cans, minimizing Can replacements.
3. They retain their bright, silvery finish longer—always neat and distinctive in appearance.

Ask your supply house—or write us for catalog and prices.



**THE WITT
CORNUCE CO.**
2122 Winchell Ave.
CINCINNATI, OHIO

WITT CANS

A New Mattress Filler

An improvement in mattress fillers for hospital beds and operating table pads has been announced by Armour Curled Hair Works, 1355 West Thirty-First Street, Chicago. This new Armour product is called Hairflex and is a combination of latex rubber and curled hair molded to various sizes and specifications. It is adaptable to all hospital uses and conditions, according to the manufacturer. Resiliency, light weight, ease of sterilization and long life are the advantages claimed for the product.

Oil Furnace for Water Heating

An oil furnace for commercial water heating, the G-E Oil Furnace, has been placed on the market by General Electric Company, Schenectady, N. Y. The furnace is designed to burn low priced fuel (light industrial fuel oil), and is completely automatic in operation.

New Trade Catalogues and Pamphlets

Modernize With Mohair—Carpets, draperies and upholsteries in new designs are described effectively in a series of folders issued by L. C. Chase & Co., Inc., 295 Fifth Avenue, New York City. Information is now also available on a new mohair woven by Goodall-Sanford representing an entirely new type of upholstery fabric. This comes in thirty-six new colors. Mohairs are also now available without a pile surface, some even resembling hand blocked linens and executed in many different designs.

For Oxygen Starved Patients—A tirelessly working valet in the oxygen therapy department is the Oxygenaire, described in a booklet by the American Hospital Supply Corp., Merchandise Mart, Chicago. Also, this machine displays a fellow feeling for the budget because, according to the manufacturer, it delivers oxygen to the patient at greatly reduced costs.

Air Conditioning a Therapeutic Aid—If you contemplate air conditioning the operating room or nursery or nine-bed ward, investigate "exact selection" as explained in a new booklet by Kelvinator Corp., Plymouth Road, Detroit. Exact selection, as stated, is a unique method of meeting individual requirements with exactly the right equipment.

When Kitchens Are Factories—If bake shops and kitchens are factories, why not equip such food workshops with electric cooking and baking units, suggests the Edison General Electric Appliance Co., Inc., 5600 West Taylor Street, Chicago, in Catalogue B-700. Inducements to study this catalogue of electric appliances include columns on "why and where they are used" and "how they are made."

A Birthday and a Catalogue—Celebrating its twentieth anniversary, Will Ross, Inc., 779 North Water Street, Milwaukee, recently produced what is termed its most comprehensive catalogue. New items and improvements in products parade through the 120 pages, offering a profusion of suggestions for the equipment of hospitals and sanatoriums.

Ensembles for Student Nurses—Price lists and pictures are only half the story told by the new catalogue of training school apparel issued by Marvin-Neitzel Corp., Troy, N. Y. Swatches in color, of bright chambray and gingham, enliven the descriptive material while samples in white aid in the selection of white uniforms. To complete the nurse's ensemble, swatches of dark blue or vivid red guide in the purchase of a cape made to face any sort of weather.